PIONEER
The Art of Entertainment

Service Manual

ORDER NO.
ARP2523

STEREO AMPLIFIER
A-676-G
HEZ

- **Refer to the service manual ARP2240 for A-676.**
- **This manual is applicable to A-676-G/HEZ.**
- **A-676-G is the same as A-676 except for color.**

CONTRAST OF MISCELLANEOUS PARTS

NOTES:
- *Part without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

A-676-G/HEZ and A-676/HEWZ have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		A-676/HEWZ	A-676-G/HEZ	
	Rotary knob L	AAB1222	AAB1287	
	Rotary knob M	AAB1223	AAB1288	
	Rotary konb S	AAB1224	AAB1289	
	Push knob	AAD1536	AAD2287	
	Direct knob	AAD1560	AAD2288	
	Power knob	AAD2010	AAD2302	
	Name plate	AAM1029	Non supply	
	Packing case	AHD2069	AHD2311	
	Panel base	AMB1799	AMB2005	
	Front panel	ANB1455	ANB1524	
	Operating instructions (German)	ARC1268	.....	
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portugues)	.....	ARE1194	
	Screw	FBT40P080FZK	FBT40P080FCR	

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3014

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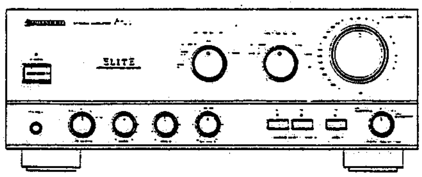
The Art of Entertainment

Service Manual



ORDER NO.
ARP2240

STEREO AMPLIFIER

A-676
A-676-S

A−676 AND A−676−S HAVE THE FOLLOWING :

Type	Model		Power Requirement	Remarks
	A−676	A−676−S		
HE	○	—	AC220V−230V, 240V (switchable) *	
HB	○	—	AC220V−230V, 240V (switchable) *	
SD	○	—	AC110V, 120V−127V, 220V, 240V (switchable)	
HEWZ	○	○	AC220V−230V, 240V (switchable) *	

* Change the connection of the power transformer primary pins.

- **This manual is applicable to the A−676/HE, HB, SD, HEWZ and A−676−S/HEWZ types.**
- **As to the HB, SD, HEWZ and A−676−S/HEWZ types, refer to page 30.**
- **The A−676−S is the same as the A−676 except for color.**

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YX MAY 1991 Printed in Japan

1. EXPLODED VIEWS, PACKING AND PARTS LIST

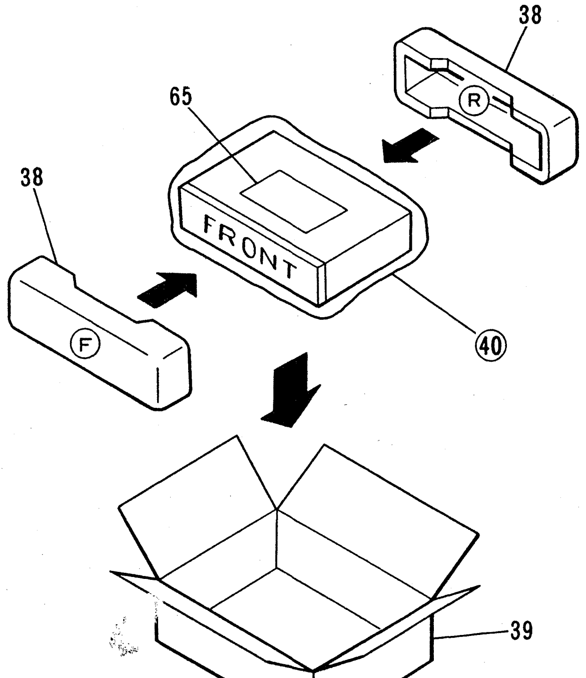
NOTES:
- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior and Packing

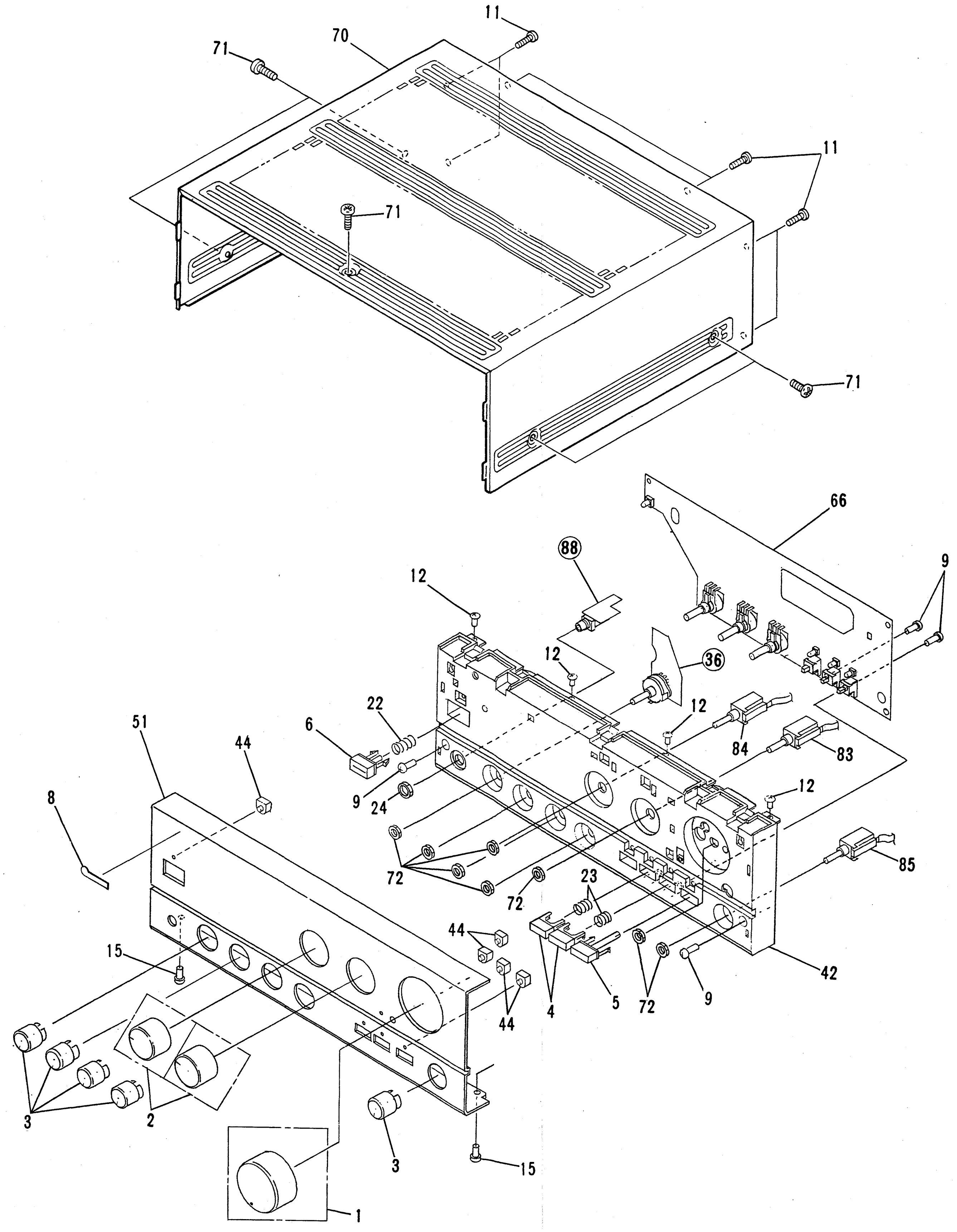
Mark	No.	Description	Parts No.
	1	ROTARY KNOB L (VOLUME)	AAB1222
	2	ROTARY KNOB M (REC SELECTOR, INPUT SELECTOR)	AAB1223
	3	ROTARY KNOB S (SPEAKERS, BASS, TREBLE, BALANCE, PHONO SELECTOR)	AAB1224
	4	PUSH KNOB (LOUDNESS, ADPT/TAPE3)	AAD1536
	5	DIRECT KNOB	AAD1560
	6	POWER KNOB	AAD2010
	7	REC OUT ASSEMBLY	
	8	NAME PLATE (METAL)	AAM1029
	9	SCREW	ABA−298
	10	SCREW (STEEL)	ABA1004
	11	SCREW (STEEL)	ABA1009
	12	SCREW (STEEL)	ABA1011
	13	SCREW (STEEL)	ABA1014
	14	SCREW (STEEL)	ABA1047
	15	SCREW (STEEL)	ABA1048
	16	SCREW (STEEL)	ABA1050
	17	SCREW	ABA1056
	18	SCREW	ABA1082
	19	SCREW	ABA1088
	20	SPACER	ABF1002
	21	WASHER	ABF1017
	22	SPRING	ABH1033
	23	SPRING	ABH1034
	24	NUT	ABN−065
	25	FLANGE NUT M9	ABN−072
⚠	26	AC POWER CORD	ADG1049
	27	CUSHION C (RUBBER)	
	28	NYLON BINDER	
◉	29	POWER R ASSEMBLY	AWZ3421
	30	STRAIN RELIEF	AEC−882
	31	SPACER	
	32	NYLON RIVET	AEC1160
	33	INPUT SELECTOR ASSEMBLY	
	34	SPACER	
	35	SHEET	AEE1014
	36	SPEAKER SWITCH ASSEMBLY	
	37	CLAMPER	
	38	STYROL PROTECTOR	AHA1070
	39	PACKING CASE	AHD2069
	40	PACKING SHEET	
	41	TERMINAL SCREW	
	42	PANEL BASE	AMB1799
	43	FOOT	AMR1159
	44	INDICATING LENS	AMR1160
	45	HOLDER	AMR1178
	46	PUSH JOINT	
	47	HEAT SINK HOLDER F	
	48	HEAT SINK HOLDER R	
	49	RIGHT FRAME	
	50	TRANS. FRAME	
	51	FRONT PANEL	ANB1455
	52	REAR PANEL	
	53	PANEL STAY	
	54	POWER L ASSEMBLY	AWZ3418
	55	BOTTOM PLATE	
	56	VOLUME HOLDER	
	57	VOLUME HOLDER ASSEMBLY	
	58	POWER ASSEMBLY HOLDER (F)	
	59	POWER ASSEMBLY HOLDER (R)	
	60	EARTH PLATE	
	61	TRANSISTOR HOLDER	
	62	HEAT SINK	
	63	HEAT SINK	
	64	LONG SHAFT ASSEMBLY	ANL1040
	65	OPERATING INSTRUCTIONS (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1194
◉	66	TONE AMP ASSEMBLY	AWZ3445
◉	67	POWER SUPPLY ASSEMBLY	AWZ3426
	68	SPEAKER TERM. ASSEMBLY	
◉	69	PHONO AMP ASSEMBLY	AWZ3436
	70	BONNET CASE	AZN1804

Mark	No.	Description	Parts No.
	71	SCREW	FBT40P080FZK
	72	NUT	NK90FCU
	73	SCREW	VMZ30P060FCU
⚠	74	ELECTROLYTIC CAPACIT (C1)	ACH1194
⚠	75	FUSE (T2.5A, FU3)	AEK−512
⚠	76	TRANSISTOR (Q1)	2SC3281
⚠	77	TRANSISTOR (Q155)	2SC4137
⚠	78	TRANSISTOR (Q156)	2SC4137
⚠	79	TRANSISTOR (Q2)	2SC3281
⚠	80	TRANSISTOR (Q3)	2SA1302
⚠	81	TRANSISTOR (Q4)	2SA1302
⚠	82	PUSH SWITCH (S1)	ASG1006
	83	SWITCH (S2)	ASU1039
	84	SWITCH (S3)	ASU1038
	85	SWITCH (S4)	ASU1026
⚠	86	POWER TRANSFORMER (T1)	ATS1352
⊙	87	VR ASSEMBLY	AWZ3441
	88	HEAD PHONE ASSEMBLY	
	89	DIODE ASSEMBLY	
	90	SCREW	ABA1129
	91	WASHER	ABE−053

- **Packing**

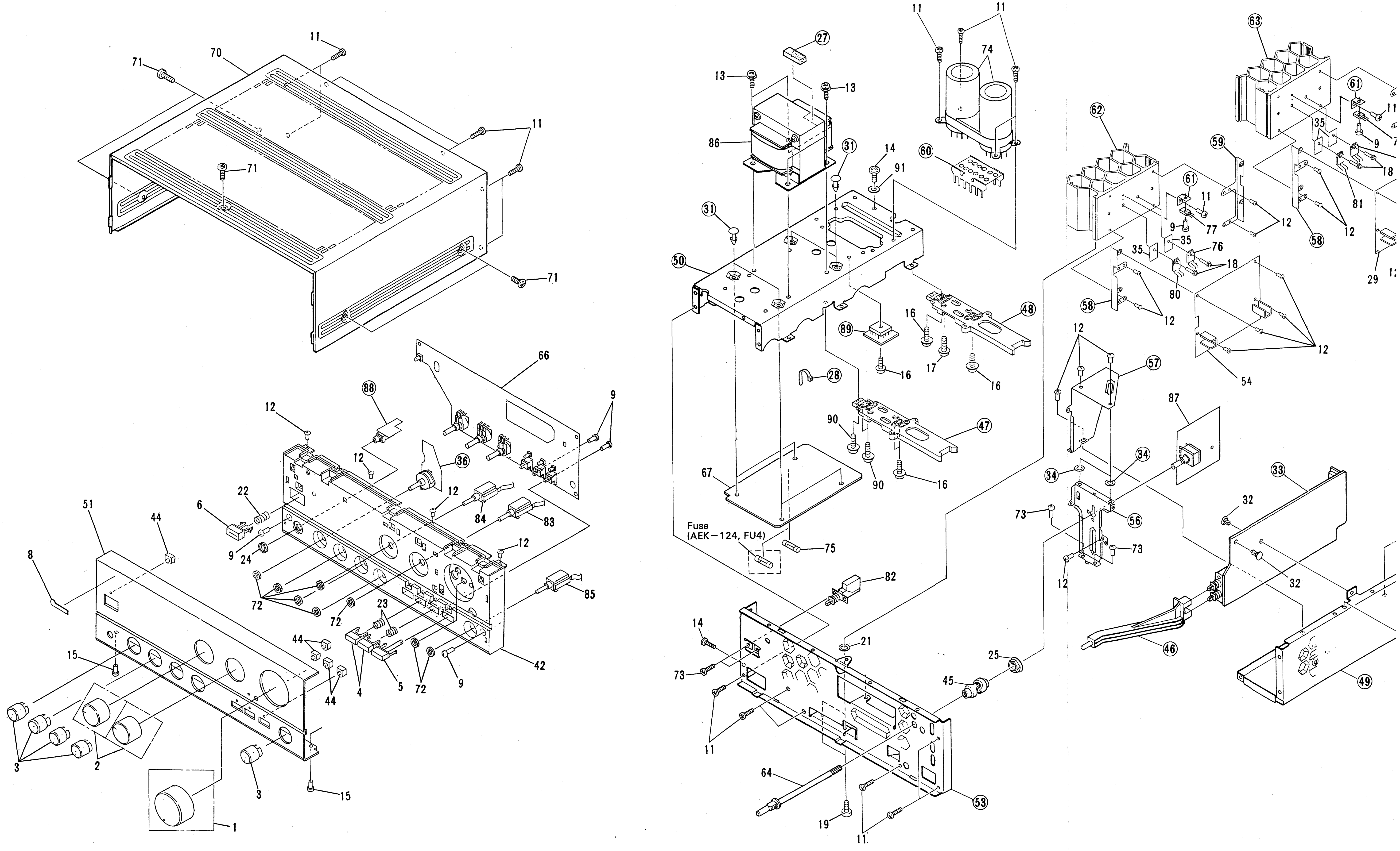

38
65
R
38
FRONT
F
(40)
39

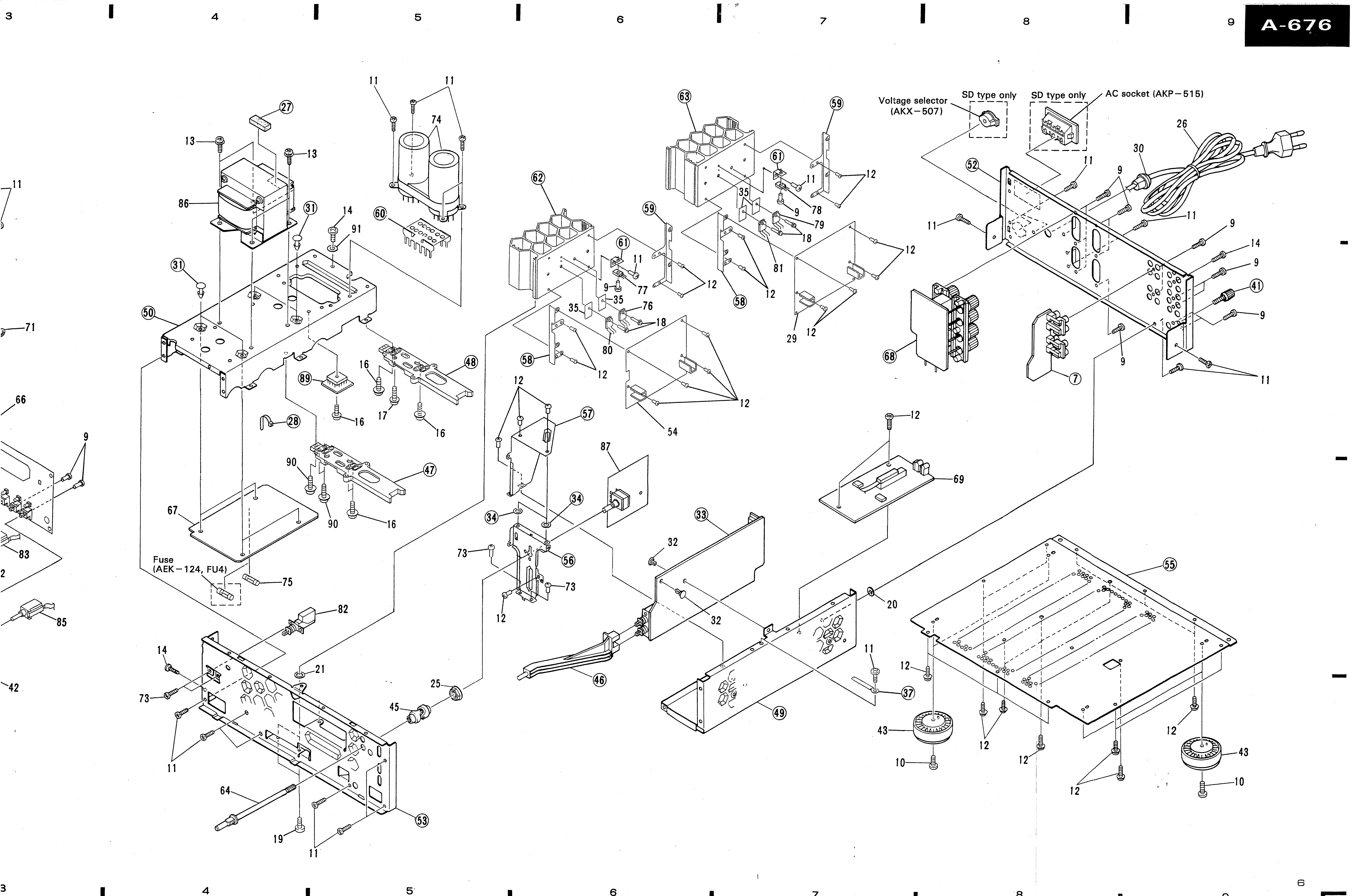
- **Exterior**


1
2
3
A
B
C
D
11
70
71
11
71
71
66
(88)
9
12
12
(36)
12
22
51
6
44
84
83
9
24
8
12
72
72
23
85
44
15
4
5
72
9
42
44
3
2
3
15
1
1
2
3

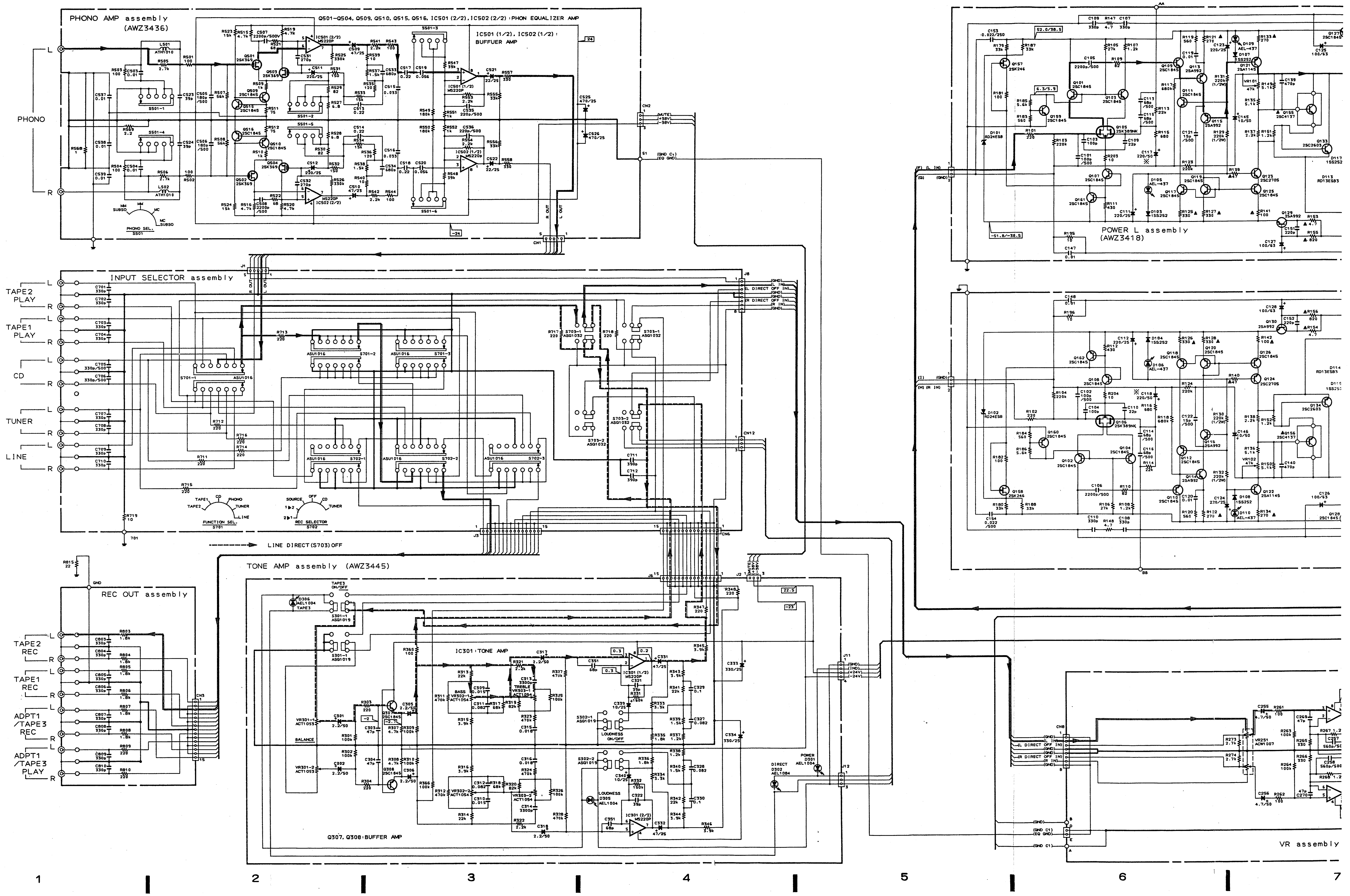
(50)

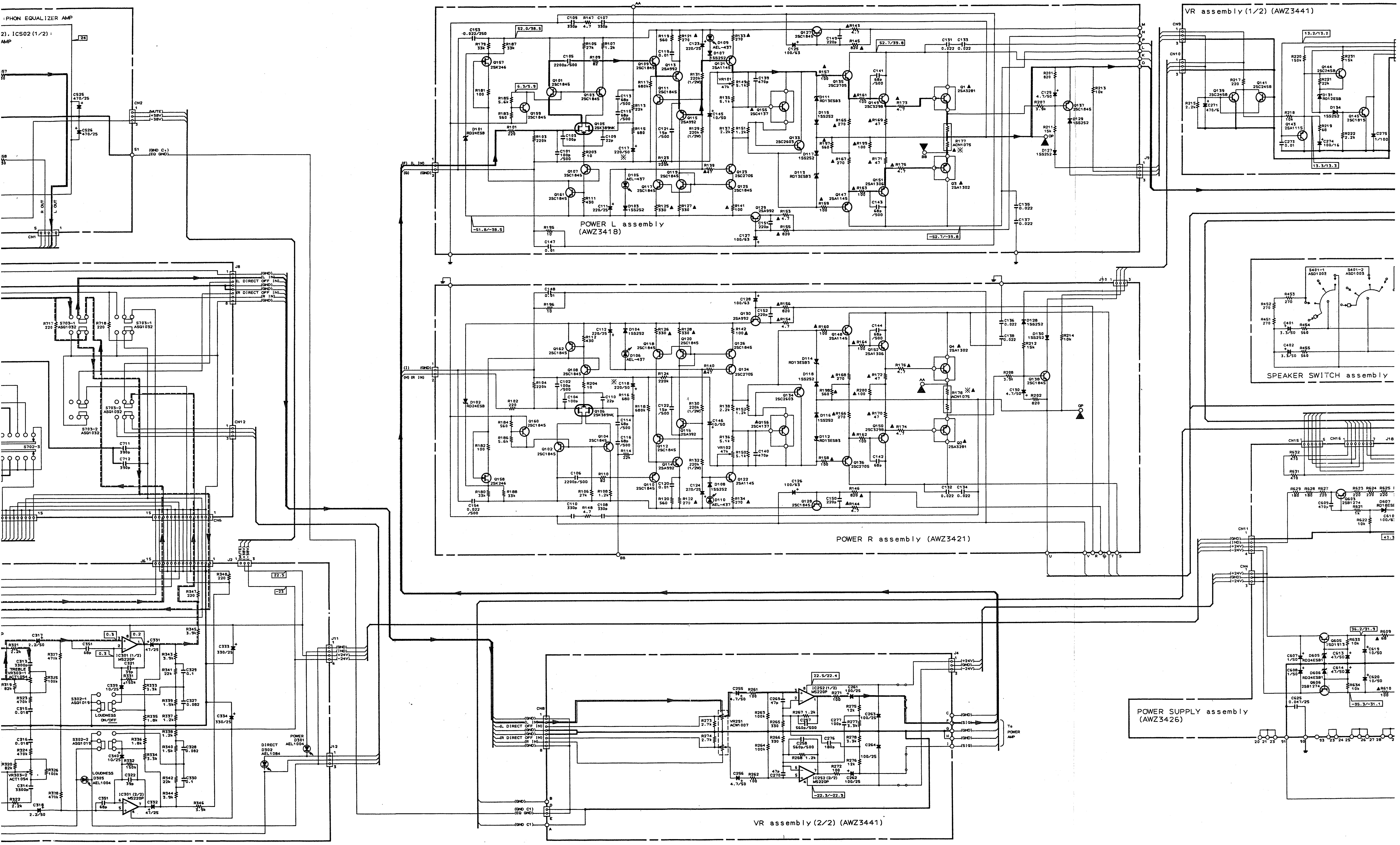
• Exterior

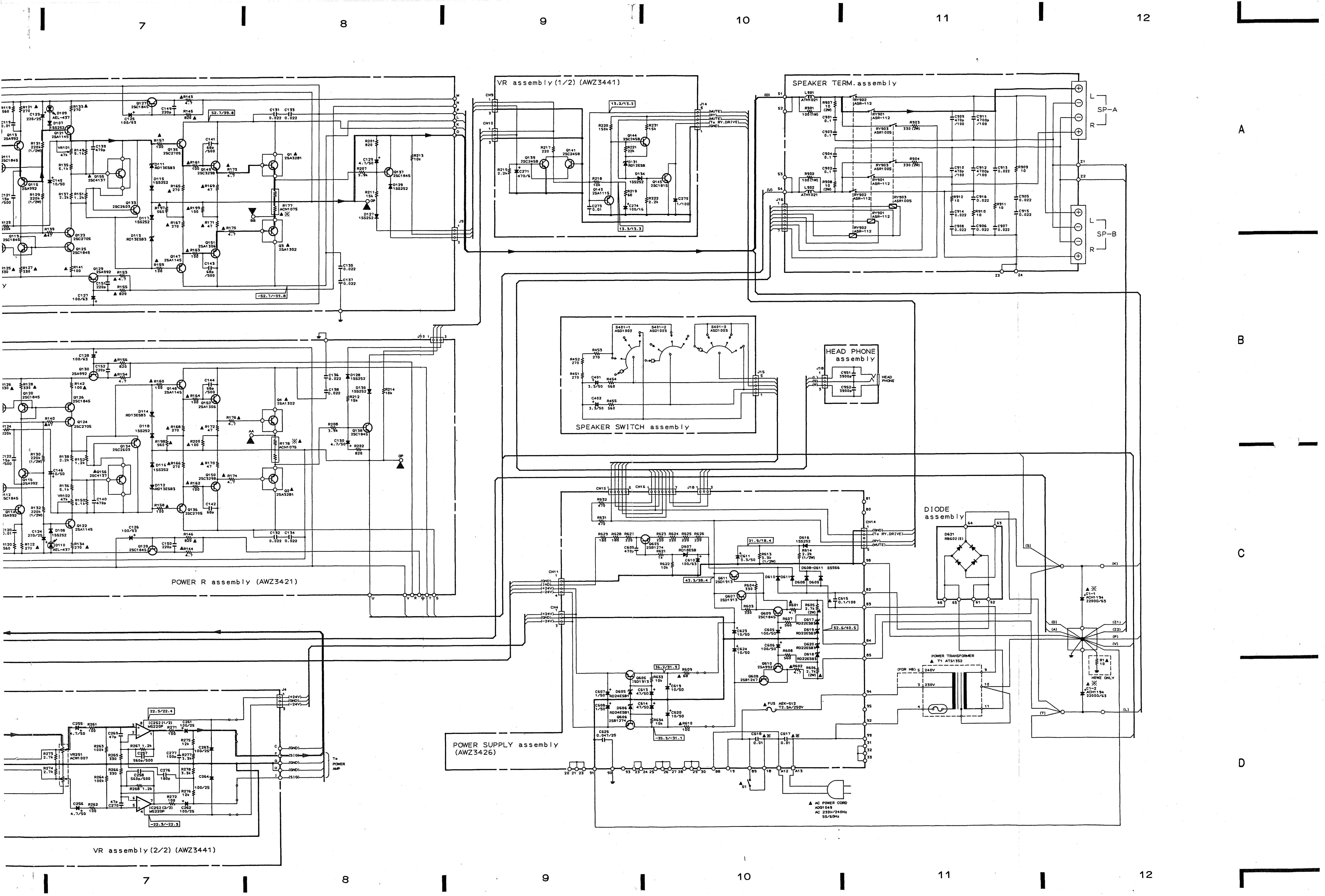

A
B
C
D
Fuse
(AEK−124, FU4)


Voltage selector
(AKX−507)
SD type only
SD type only
AC socket (AKP−515)
Fuse
(AEK−124, FU4)

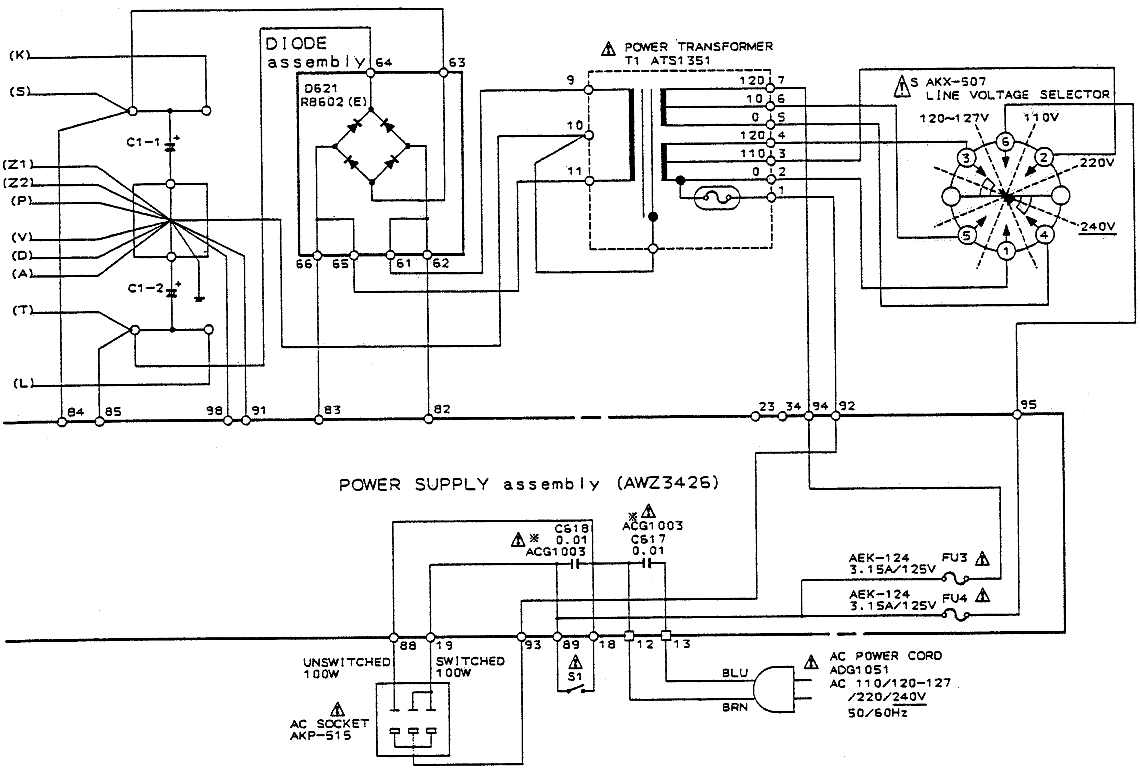
2. SCHEMATIC DIAGRAM


PHONO AMP assembly
(AWZ3436)
Q501–Q504, Q509, Q510, Q515, Q516, IC501 (2/2), IC502 (2/2) : PHONO EQUALIZER AMP
IC501 (1/2), IC502 (1/2) : BUFFUER AMP
PHONO
L
R
PHONO SEL.
S501
MM
MC
SUBSO
CN2
CN1
L OUT
R OUT
INPUT SELECTOR assembly
TAPE2 PLAY
TAPE1 PLAY
CD
TUNER
LINE
FUNCTION SEL.
S701
TAPE1
TAPE2
REC SELECTOR
S702
SOURCE
OFF
LINE DIRECT (S703) OFF
J1
J3
J8
CN6
CN12
REC OUT assembly
TAPE2 REC
TAPE1 REC
ADPT1 /TAPE3 REC
ADPT1 /TAPE3 PLAY
CN3
TONE AMP assembly (AWZ3445)
IC301 : TONE AMP
BASS
TREBLE
BALANCE
LOUDNESS ON/OFF
TAPE3 ON/OFF
Q307, Q308 : BUFFER AMP
DIRECT
POWER
J2
J6
J11
J12
POWER L assembly
(AWZ3418)
VR assembly
CN8
1
2
3
4
5
6
7
A
B
C
D


PHON EQUALIZER AMP
2), IC502(1/2)
AMP
POWER L assembly
(AWZ3418)
POWER R assembly (AWZ3421)
VR assembly(1/2) (AWZ3441)
VR assembly(2/2) (AWZ3441)
SPEAKER SWITCH assembly
POWER SUPPLY assembly
(AWZ3426)
52.0/38.5
52.7/39.8
-51.8/-38.5
-52.7/-39.8
13.2/13.2
13.3/13.3
22.5/22.4
-22.3/-22.3
36.2/31.9
-35.3/-31.1
22.5
-23
(GND)
(L IN)
(R IN)
(L DIRECT OFF IN)
(R DIRECT OFF IN)
(+24V)
(-24V)
(MUTE)
(+38V)
(-38V)
(GND C1)
(EQ GND)
(SIG)
To POWER AMP
LOUDNESS ON/OFF
TREBLE
DIRECT D302 AEL1084
POWER D301 AEL1004
IC301(1/2) M5220P
IC301(2/2) M5220P
IC252(1/2) M5220P
IC252(2/2) M5220P
VR251 ACW1007
S401-1 ASD1003
S401-2 ASD1003
S703-1 ASG1032
S703-2 ASG1032
S702-3
CN1
CN2
CN4
CN6
CN8
CN9
CN10
CN11
CN12
CN15
CN16
J2
J4
J6
J8
J9
J10
J11
J12
J18
AA
BB
OP


7
8
9
10
11
12
A
B
C
D
VR assembly (1/2) (AWZ3441)
SPEAKER TERM. assembly
SP-A
SP-B
L
R
SPEAKER SWITCH assembly
HEAD PHONE assembly
HEAD PHONE
POWER R assembly (AWZ3421)
DIODE assembly
D621 RB602(E)
POWER TRANSFORMER T1 ATS1352
POWER SUPPLY assembly (AWZ3426)
VR assembly (2/2) (AWZ3441)
To POWER AMP
IC252 (1/2) M5220P
IC252 (2/2) M5220P
VR251 ACW1007
AC POWER CORD ADG1045 AC 230V/240Hz 50/60Hz
FUS AEK-512 T2.5A/250V
(MUTE)
(RY)
(To RY. DRIVE)
(GND)
(+24V)
(-24V)
(SIG)
52.7/39.8
-52.7/-35.8
13.2/13.2
13.3/13.3
21.9/18.4
43.3/38.4
52.6/40.5
36.2/31.9
-35.3/-31.1
22.5/22.4
-22.3/-22.3
NEWZ ONLY
S1

• POWER SUPPLY SECTION (SD type)


(K)
(S)
(Z1)
(Z2)
(P)
(V)
(D)
(A)
(T)
(L)
C1-1
C1-2
DIODE assembly
D621
RB602 (E)
64
63
66
65
61
62
⚠ POWER TRANSFORMER
T1 ATS1351
9
10
11
120 7
10 6
0 5
120 4
110 3
0 2
1
⚠S AKX-507
LINE VOLTAGE SELECTOR
120~127V
110V
220V
240V
1
2
3
4
5
6
84
85
98
91
83
82
23
34
94
92
95
POWER SUPPLY assembly (AWZ3426)
⚠※ C618 0.01 ACG1003
※⚠ ACG1003 C617 0.01
AEK-124 3.15A/125V FU3 ⚠
AEK-124 3.15A/125V FU4 ⚠
88
19
93
89
18
12
13
UNSWITCHED 100W
SWITCHED 100W
⚠ AC SOCKET AKP-515
⚠ S1
BLU
BRN
⚠ AC POWER CORD
ADG1051
AC 110/120-127
/220/240V
50/60Hz

1. RESISTORS:
   Indicated in Ω, ¼W, ⅛W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:
   Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
   Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:
   ☐ : Signal voltage at (W + W 8Ω)output (1kHz)
   ☐ : DC voltage (V) at no input signal
   Value in ( ) is DC voltage at rated power.
   ⇦ mA : DC current at no input signal

4. OTHERS:
   ➡ : Signal route.
   ⊘ : Adjusting point.
   The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
   ※ marked capacitors and resistors have parts numbers.

   This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

SWITCHES:

S1 POWER SW

TONE AMP assembly
  S301 TAPE3 ON/OFF
  S302 LOUDNESS ON/OFF

SPEAKER SWITCH assembly
  S401 SPEAKER A,B(OFF/A/B/A+B)

INPUT SELECTOR assembly
  S701 INPUT SELECTOR
  S702 REC SELECTOR
  S703 DIRECT

PHONO AMP assembly
  S501 PHONO SELECTOR

LINE VOLTAGE SELECTION
(For A−676/HE, HB ,HEWZ and A−676−S/HEWZ types.)

Line voltage can be changed with the following steps.

1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection of the power transformer primary pins.

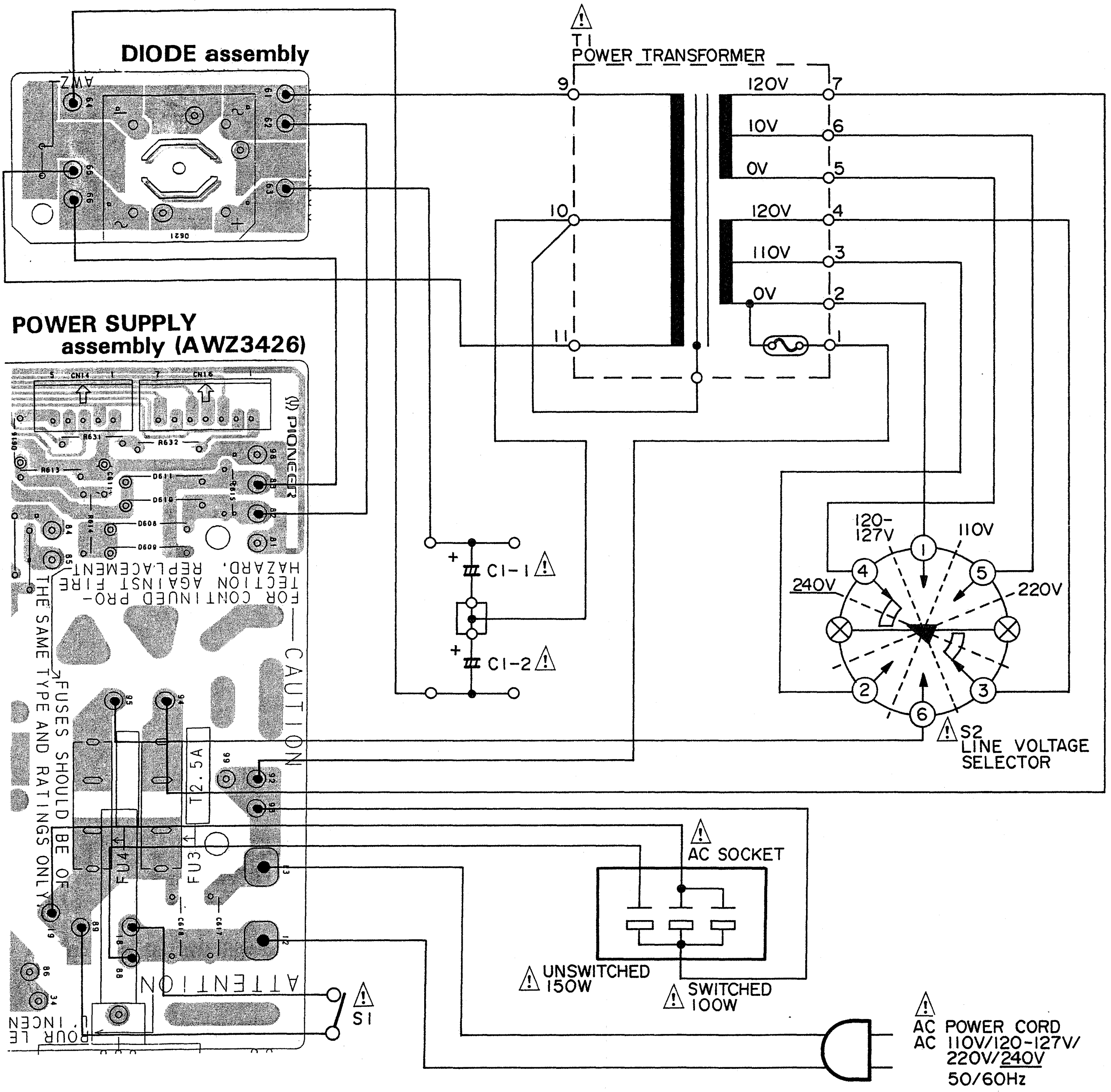
Voltage	Power transformer Pin No.
220V	3
240V	5

4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX−193	220V label
AAX−192	240V label

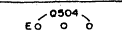
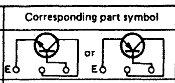
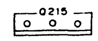
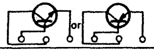
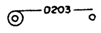
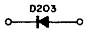
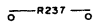
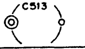
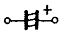
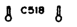
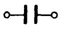
3. P.C.BOARDS CONNECTION DIAGRAM

• POWER SUPPLY SECTION (SD type)


DIODE assembly
AWZ
D621
POWER SUPPLY assembly (AWZ3426)
CN14
CN16
R631
R632
R613
D611
D610
D608
D609
PIONEER
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY
CAUTION
FU4
FU3
T2.5A
ATTENTION
T1
POWER TRANSFORMER
9
10
11
120V
10V
0V
120V
110V
0V
7
6
5
4
3
2
1
C1-1
C1-2
S1
120-127V
110V
240V
220V
S2
LINE VOLTAGE SELECTOR
AC SOCKET
UNSWITCHED 150W
SWITCHED 100W
AC POWER CORD
AC 110V/120-127V/220V/240V
50/60Hz
A
B
C
D

NOTE

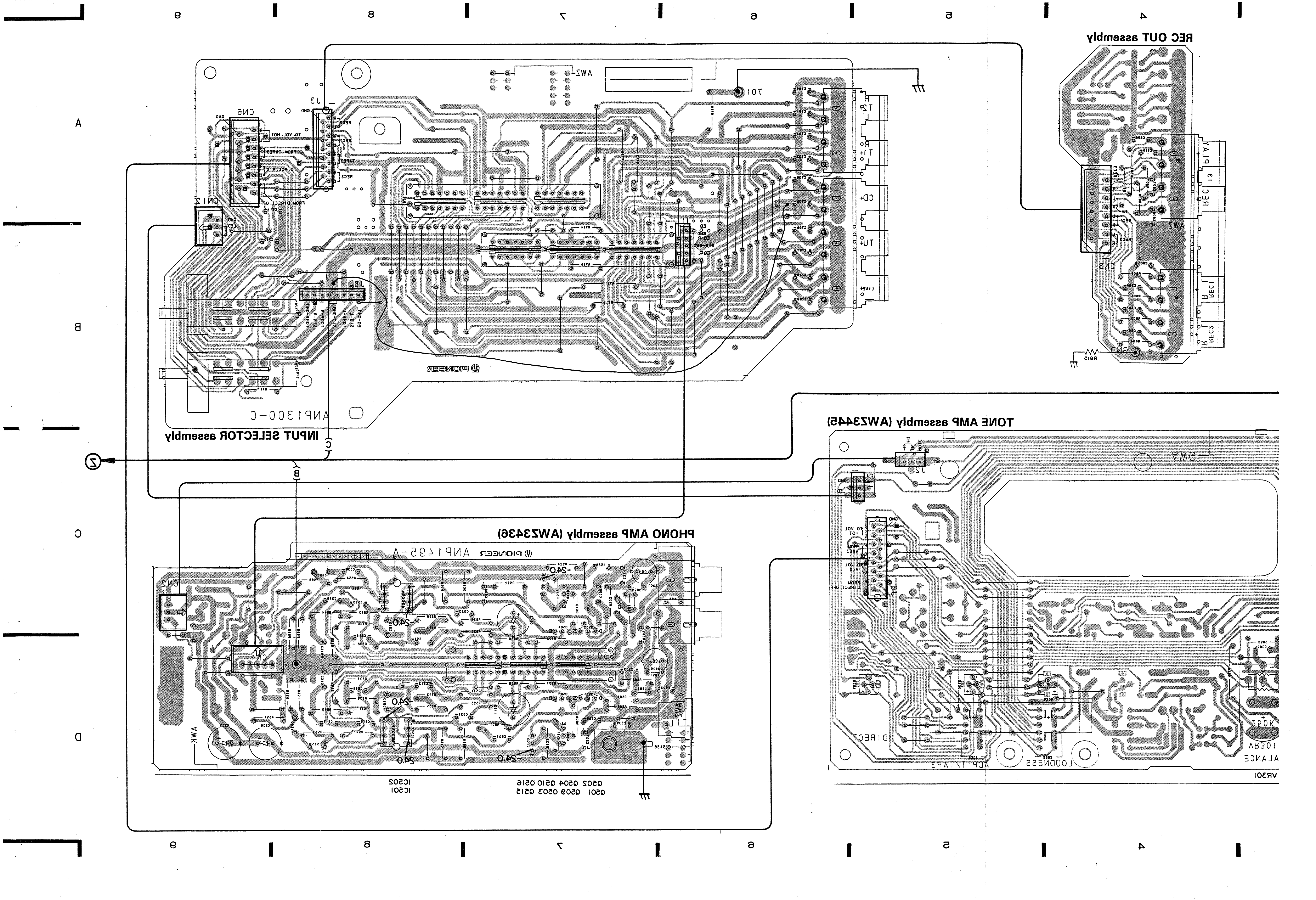
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

Others

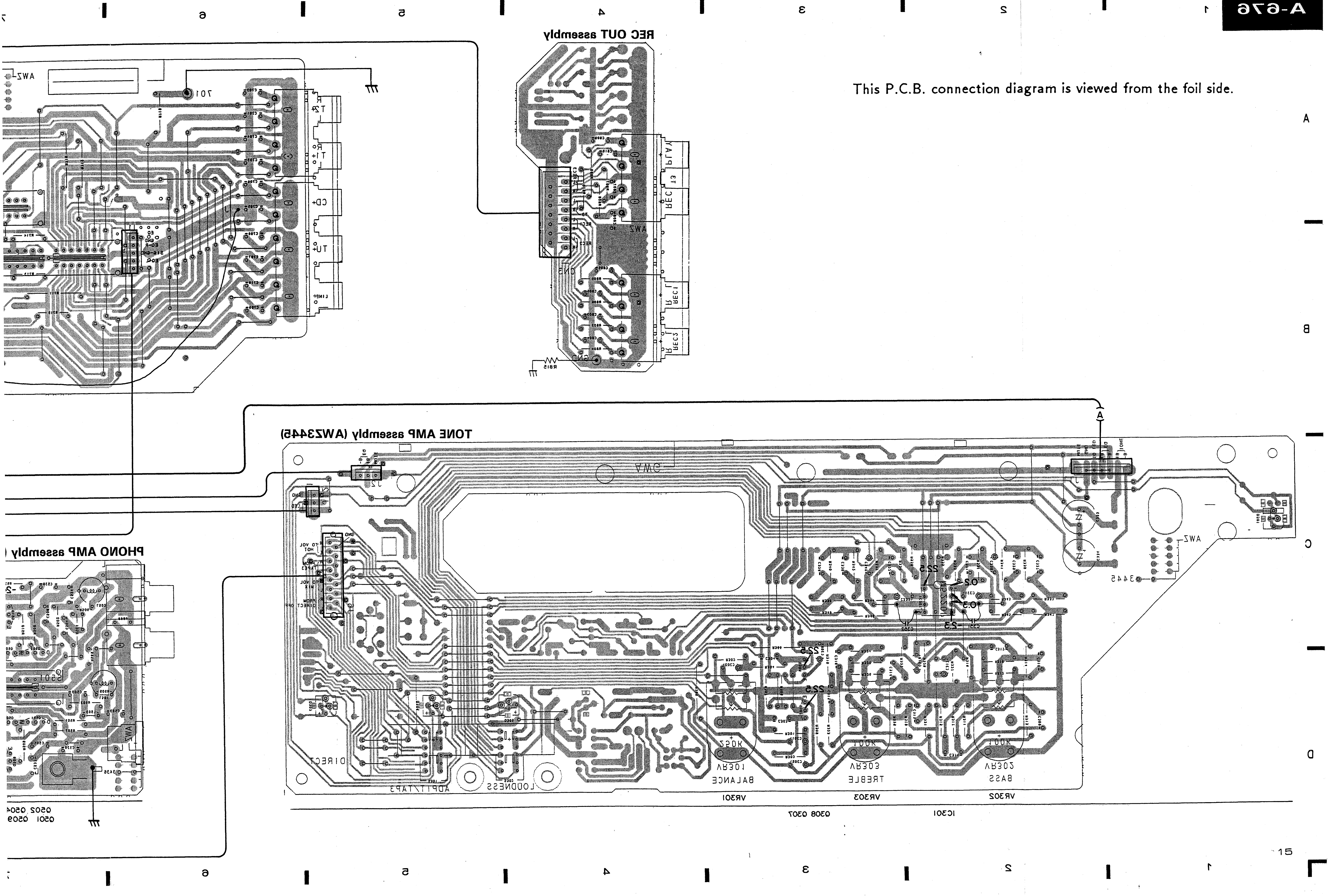
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎(double circles) shows negatine termianl.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.



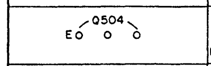
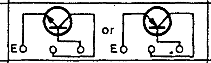
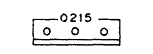
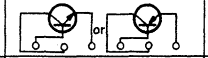
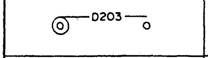
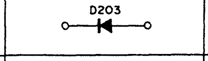
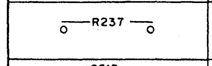
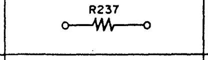
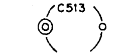
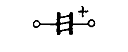
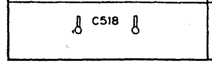
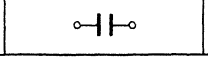
REC OUT assembly
INPUT SELECTOR assembly
TONE AMP assembly (AWZ3445)
PHONO AMP assembly (AWZ3436)
ANP1300-C
ANP1495-A
PIONEER
CN6
CN12
J3
J8
CN5
CN1
CN2
J12
AWZ
AWK
TO. VOL. HOT
FROM. TAPES
TO. VOL. MIX
FROM. DIRECT. OFF
GND
LED
PLAY
REC1
REC2
T2
T1
CD
TU
LINE
DIRECT
LOUDNESS
ADPT1/TAP3
BALANCE
VR301
IC502
IC501
Q502 Q504 Q510 Q516
Q501 Q509 Q503 Q515
-24.0
24.0
R815
A
B
C
D
9
8
7
6
5
4

This P.C.B. connection diagram is viewed from the foil side.


REC OUT assembly
TONE AMP assembly (AWZ3445)
PHONO AMP assembly (
AWZ
PLAY
REC1
REC2
R T2+
R T1+
CD+
TU+
LINE+
GND
R815
701
A
VR301
BALANCE
250K
VR303
TREBLE
100K
VR302
BASS
100K
LOUDNESS
ADPT1/TAP3
DIRECT
IC301
Q308 Q307
3445
3436
Q502 Q504
Q501 Q509 Q501
22.5
2.3
0.5
0.2
1
2
3
4
5
6
7
A
B
C
D

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

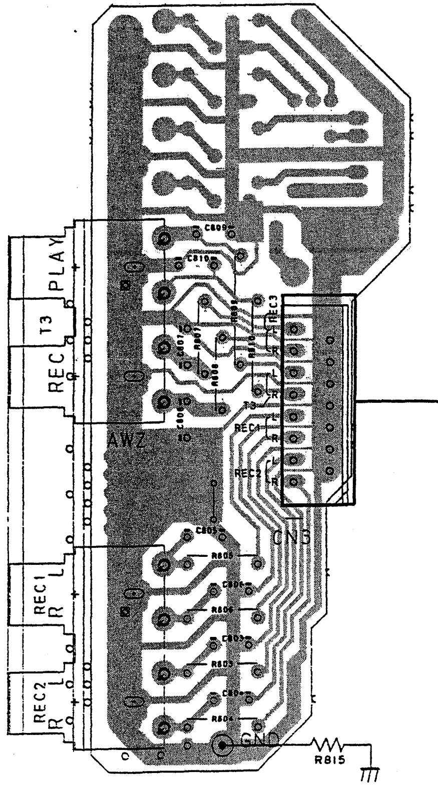
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

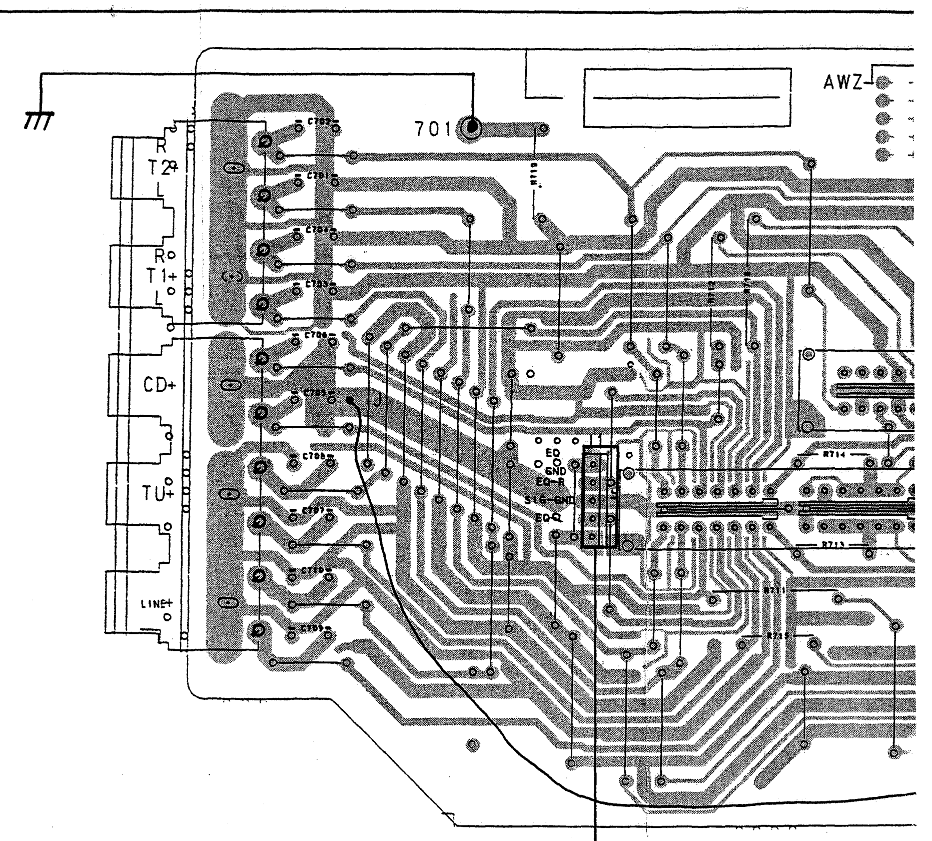
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

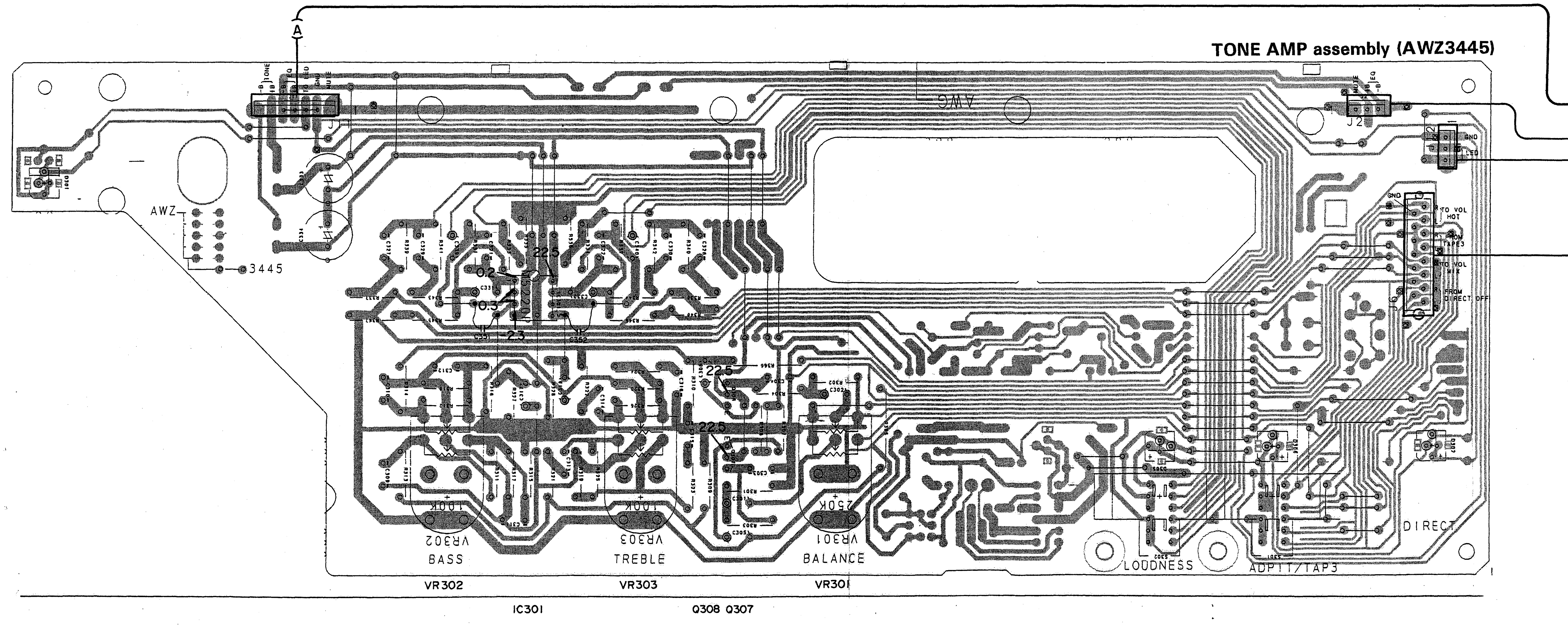
3. The capactor terminal marked with ◎ (double circles) shows negatine termianl.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

REC OUT assembly

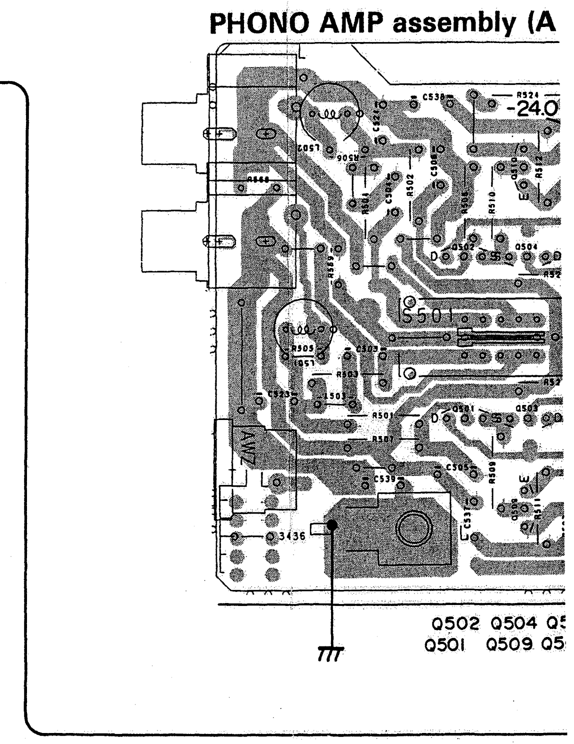

PLAY
T3
REC
AWZ
REC1
REC2
CN3
GND
R815

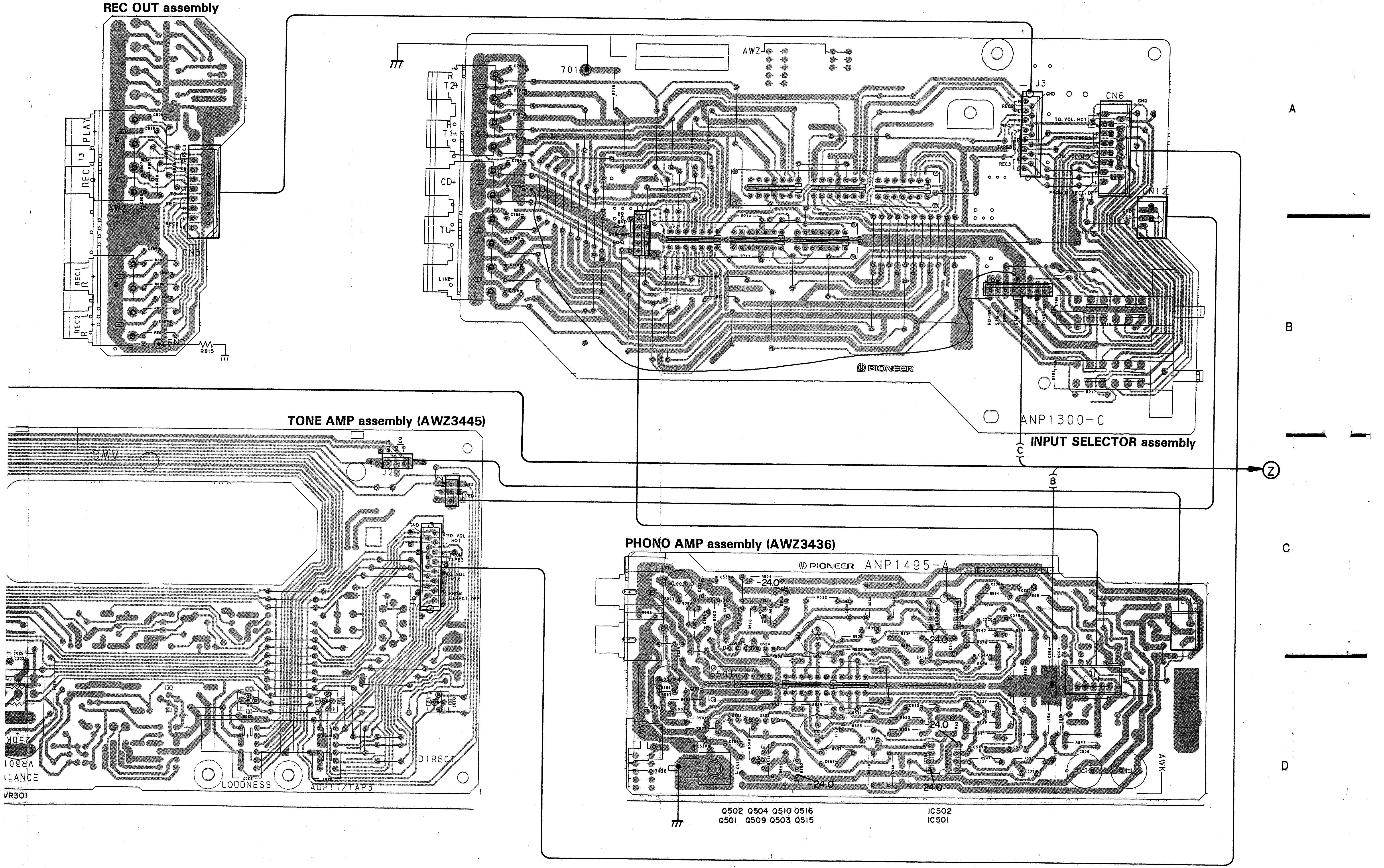

AWZ
701
T2
T1
CD+
TU+
LINE
R714
R713

TONE AMP assembly (AWZ3445)


A
J1
J2
AWZ
3445
22.5
0.2
0.3
2.3
TO VOL HOT
FROM TAPE3
TO VOL MIX
FROM DIRECT OFF
GND
100K
VR302
BASS
VR303
TREBLE
250K
VR301
BALANCE
LOUDNESS
ADPT1/TAP3
DIRECT
VR302
VR303
VR301
IC301
Q308 Q307

PHONO AMP assembly (A


-24.0
S501
AWZ
3436
Q502 Q504 Q5
Q501 Q509 Q5



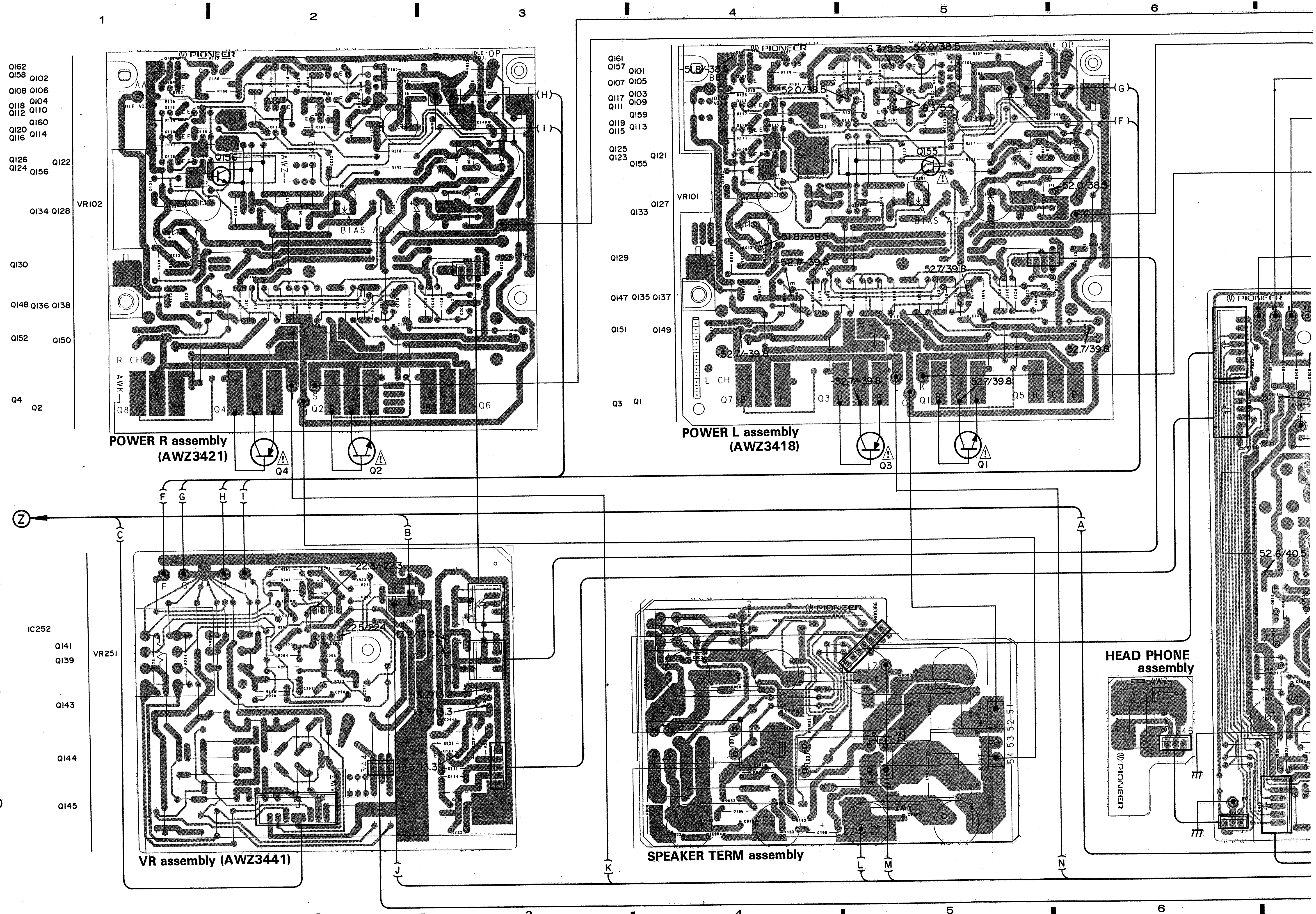
REC OUT assembly

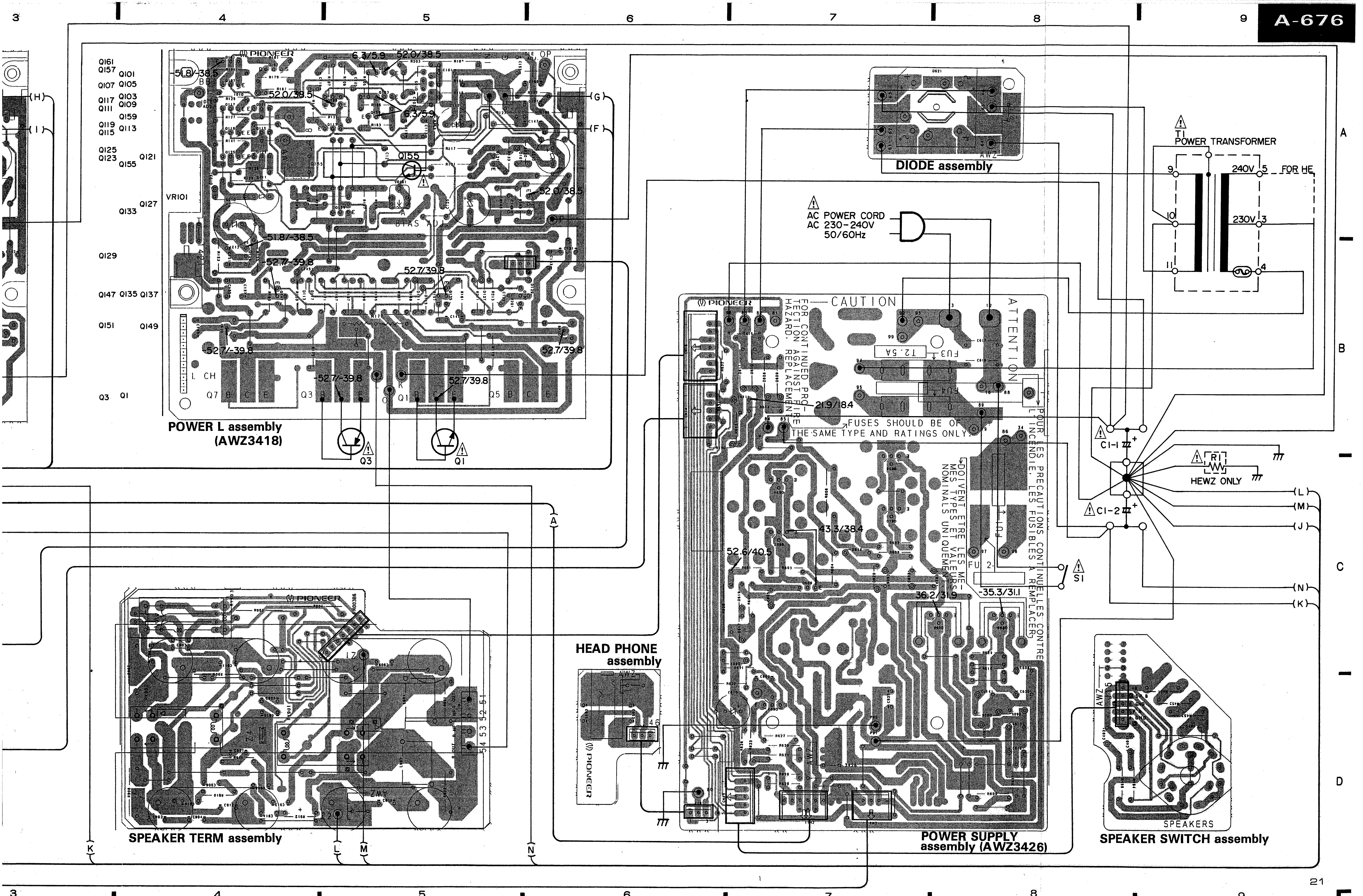
INPUT SELECTOR assembly

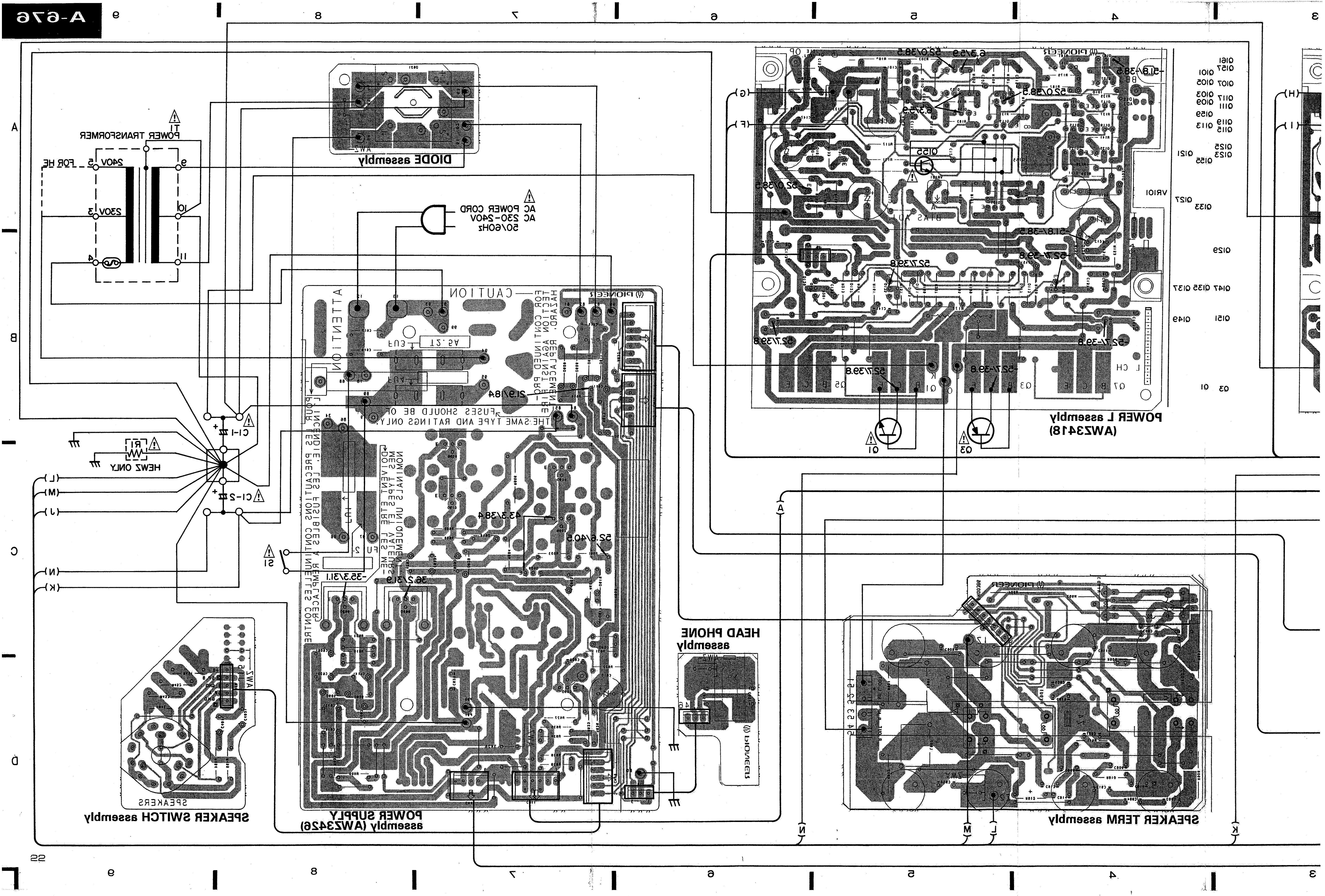
TONE AMP assembly (AWZ3445)

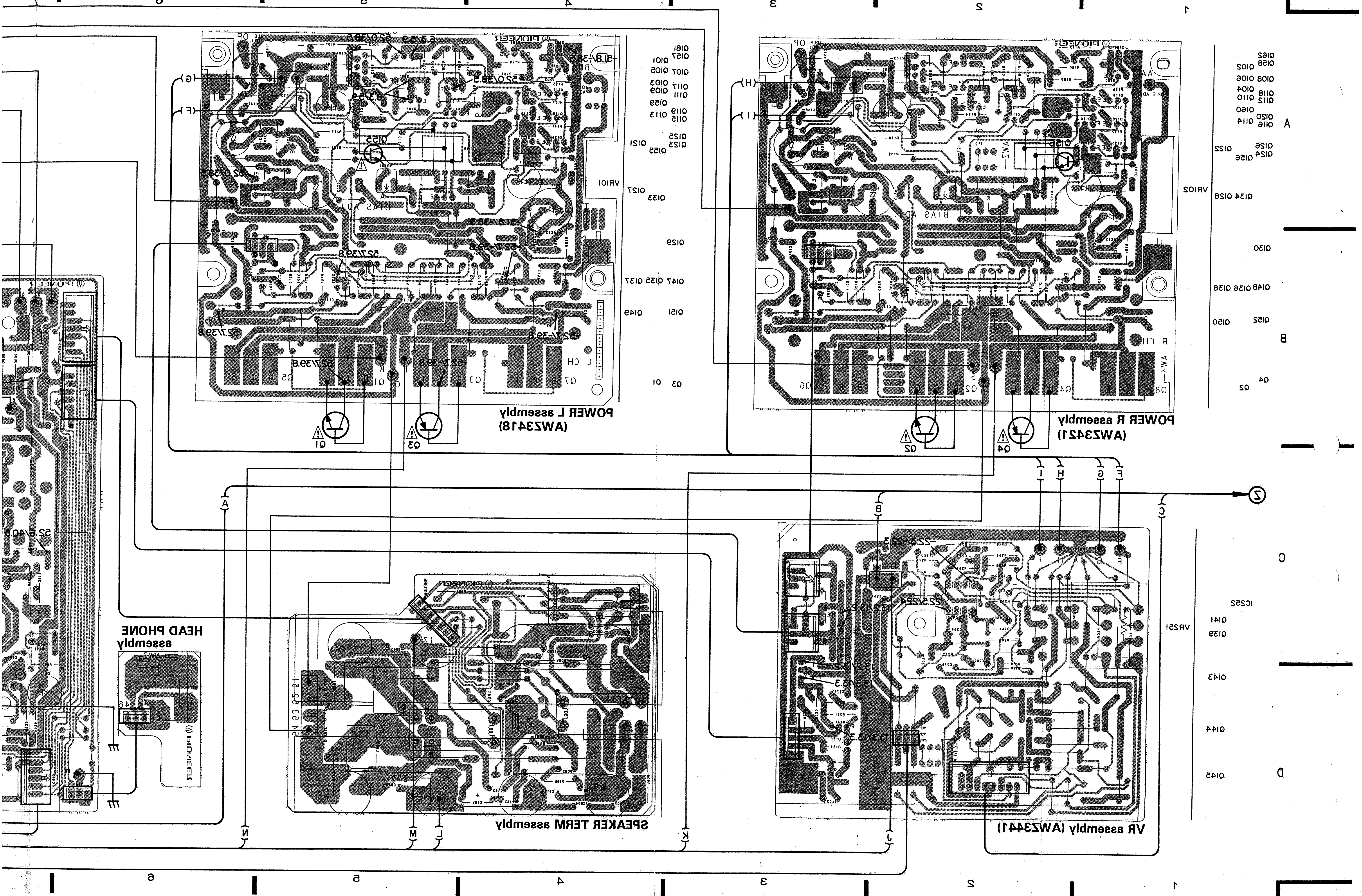
PHONO AMP assembly (AWZ3436)

4
5
6
7
8
9
A
B
C
D
PLAY
T3
REC
AWZ
REC1
REC2
CN5
GND
R815
701
AWZ
T2+
T1+
CD+
TU+
LINE+
J3
CN6
TO VOL HOT
FROM TAPE3
TO VOL MIX
FROM DIRECT OFF
CN12
J1
EQ
EQ-R
SIG-GND
J8
R714
R713
R715
R716
R717
PIONEER
ANP1300-C
C
B
Z
AWG
J2
LED
GND
TO VOL HOT
FROM TAPE3
TO VOL MIX
FROM DIRECT OFF
VR301
250K
BALANCE
LOUDNESS
ADPT1/TAP3
DIRECT
PIONEER
ANP1495-A
-24.0
24.0
S501
CN2
CN1
AWK
3436
R522
Q502 Q504 Q510 Q516
Q501 Q509 Q503 Q515
IC502
IC501


1
2
3
4
5
6
A
B
C
D
POWER R assembly (AWZ3421)
POWER L assembly (AWZ3418)
VR assembly (AWZ3441)
SPEAKER TERM assembly
HEAD PHONE assembly
PIONEER
Q162 Q158 Q102
Q108 Q106
Q118 Q112 Q104 Q110
Q160
Q120 Q116 Q114
Q126 Q124 Q156 Q122
Q134 Q128
VR102
Q130
Q148 Q136 Q138
Q152 Q150
Q4 Q2
Q161 Q157 Q101
Q107 Q105
Q117 Q111 Q103 Q109
Q159
Q119 Q115 Q113
Q125 Q123 Q155 Q121
VR101
Q133 Q127
Q129
Q147 Q135 Q137
Q151 Q149
Q3 Q1
IC252
Q141
Q139
VR251
Q143
Q144
Q145
Q156
Q155
Q4
Q2
Q3
Q1
R CH
L CH
BIAS ADJ
IDLE ADJ
Q8 Q4 Q2 Q6
Q7 Q3 Q1 Q5
B C E
-51.8/-38.5
6.3/5.9
52.0/38.5
52.0/38.5
6.3/5.9
52.0/38.5
-51.8/-38.5
-52.7/-39.8
52.7/39.8
52.7/39.8
-52.7/-39.8
-52.7/-39.8
52.7/39.8
52.6/40.5
-22.3/-22.3
22.5/22.4
13.2/13.2
13.2/13.2
13.3/13.3
13.3/13.3
F G H I
A B C J K L M N
Z


3
4
5
6
7
8
9
A
B
C
D
Q161
Q157
Q101
Q107
Q105
Q117
Q103
Q111
Q109
Q159
Q119
Q113
Q115
Q125
Q123
Q121
Q155
Q127
VR101
Q133
Q129
Q147
Q135
Q137
Q151
Q149
Q3
Q1
PIONEER
-51.8/-38.5
52.0/38.5
6.3/5.9
BIAS ADJ
-52.7/-39.8
52.7/39.8
L CH
Q7
Q5
POWER L assembly
(AWZ3418)
DIODE assembly
AWZ
T1
POWER TRANSFORMER
240V
230V
FOR HE
AC POWER CORD
AC 230-240V
50/60Hz
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE
ATTENTION
FU3
T2.5A
FU1
FU2
21.9/18.4
FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER
DOIVENT ETRE LES MEMES TYPES ET VALEURS NOMINALS UNIQUEMENT.
C1-1
C1-2
R1
HEWZ ONLY
L
M
J
N
K
G
F
H
I
A
43.3/38.4
52.6/40.5
36.2/31.9
-35.3/31.1
S1
HEAD PHONE
assembly
SPEAKER TERM assembly
POWER SUPPLY
assembly (AWZ3426)
SPEAKERS
SPEAKER SWITCH assembly


9
8
7
6
5
4
3
A
B
C
D
DIODE assembly
T1
POWER TRANSFORMER
240V
5
FOR HE
230V
3
4
9
10
11
AC POWER CORD
AC 230-240V
50/60Hz
CAUTION — FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE
FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION
FU1
FU2
FU3
12.5A
R1
HEWZ ONLY
C1-1
C1-2
S1
L
M
J
N
K
A
F
G
H
I
21.9/18.4
43.3/38.4
52.6/40.5
-35.3/31.1
36.2/31.9
POWER SUPPLY
assembly (AWZ3426)
HEAD PHONE
assembly
SPEAKER SWITCH assembly
SPEAKERS
SPEAKER TERM assembly
POWER L assembly
(AWZ3418)
PIONEER
L CH
Q1
Q3
Q5
Q7
B
C
E
52.0/38.5
6.3/5.9
-51.8/-38.5
-52.0/38.5
-52.7/-39.8
52.7/39.8
BIAS ADJ
Q101
Q103
Q105
Q107
Q109
Q111
Q113
Q115
Q117
Q119
Q121
Q123
Q125
Q127
Q129
Q133
Q135
Q137
Q147
Q149
Q151
Q155
Q157
Q159
Q161
VR101


POWER L assembly (AWZ3418)
POWER R assembly (AWZ3421)
VR assembly (AWZ3441)
SPEAKER TERM assembly
HEAD PHONE assembly
Q1
Q2
Q3
Q4
VR101
VR102
VR251
IC252
BIAS ADJ
L CH
R CH
52.7/39.8
52.7/-39.8
52.0/38.5
51.8/-38.5
52.6/40.5
22.5/22.4
22.3/-22.3
13.2/13.2
13.3/13.3
A
B
C
D
F
G
H
I
J
K
L
M
N
Z
1
2
3
4
5
6

4. PCB's PARTS LIST

NOTES:

- *Parts without part number cannot be supplied.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω 56×10^1 561.........................RD1/4PS$\boxed{5}\boxed{6}\boxed{1}$J
47kΩ 47×10^3 473.........................RD1/4PS$\boxed{4}\boxed{7}\boxed{3}$J
0.5Ω 0R5...RN2H$\boxed{0}\boxed{R}\boxed{5}$K
1Ω 010...RS1P$\boxed{0}\boxed{1}\boxed{0}$K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ 562×10^1 5621.......................RN1/4SR$\boxed{5}\boxed{6}\boxed{2}\boxed{1}$F

⊙ TONE AMP ASSEMBLY (AWZ3445)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC301	OP-AMP-IC	M5220P
	Q307, 308	TRANSISTOR	2SC1845
	D301	LED (RED)	AEL1004
	D302	LED	AEL1084
	D305, 306	LED (RED)	AEL1004

SWITCHES

Mark	No.	Description	Parts No.
	S301, 302	PUSH SWITCH	ASG1019

CAPACITORS

Mark	No.	Description	Parts No.
	C301, 302	ELECTR.CAPACITOR	CEAS2R2M50
	C303, 304	CERAMIC CAPACITOR	CCCSL470J50
	C305, 306	ELECTR.CAPACITOR	CEAS2R2M50
	C309, 310	AUDIO FILM CAPACITOR	CFTXA153J50
	C311, 312	AUDIO FILM CAPACITOR	CFTXA823J50
	C313, 314	MYLOR FILM CAPACITOR	CQMA332K50
	C315, 316	AUDIO FILM CAPACITOR	CFTXA183J50
	C317, 318	ELECTR.CAPACITOR	CEAS2R2M50
	C321, 322	CERAMIC CAPACITOR	CCCSL390J50
	C327, 328	AUDIO FILM CAPACITOR	CFTXA823J50
	C329, 330	AUDIO FILM CAPACITOR	CFTXA104J50
	C331, 332	ELECTR.CAPACITOR	CEAS470M25
	C333, 334	ELECTR.CAPACITOR	CEAS331M25
	C339, 340	ELECTR.CAPACITOR	CEAS100M25
	C351, 352	CERAMIC CAPACITOR	CCDSL680J50

RESISTORS

Mark	No.	Description	Parts No.
	VR301	VARIABLE RESISTOR	ACT1053
	VR302, 303	VARIABLE RESISTOR	ACT1054
		Other resistors	RD1/4PM□□□J

SPEAKER SWITCH ASSEMBLY

SWITCH

Mark	No.	Description	Parts No.
	S401	SWITCH	ASD1003

CAPACITORS

Mark	No.	Description	Parts No.
	C401, 402	ELECTR.CAPACITOR	CEAS3R3M50

RESISTORS

Mark	No.	Description	Parts No.
		All resistors	RD1/4PM□□□J

INPUT SELECTOR ASSEMBLY

SWITCH

Mark	No.	Description	Parts No.
	S701, 702	SWITCH	ASU1016
	S703	PUSH SWITCH	ASG1032

CAPACITORS

Mark	No.	Description	Parts No.
	C701-704	CERAMIC CAPACITOR	CKDYB331K50
	C705, 706	CERAMIC CAPACITOR	CKCYB331K500
	C707-710	CERAMIC CAPACITOR	CKDYB331K50
	C711, 712	CERAMIC CAPACITOR	CKDYB391K50

RESISTORS

Mark	No.	Description	Parts No.
		All resistors	RD1/4PM221J

OTHERS

Mark	No.	Description	Parts No.
		PIN JACK (4P)	AKB1007
		PIN JACK (6P)	AKB1008
	CN6	CONNECTOR (15P)	KPE15

REC OUT ASSEMBLY

CAPACITORS

Mark	No.	Description	Parts No.
	C803–810	CERAMIC CAPACITOR	CKDYB331K50

RESISTORS

Mark	No.	Description	Parts No.
	R807, 808	CARBON FILM RESISTOR	RD1/8PM182J
	R809, 810	CARBON FILM RESISTOR	RD1/8PM221J
		Other resistors	RD1/4PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		PIN JACK (4P)	AKB1009
	CN3	CONNECTOR (15P)	KPE15

⊙ POWER L ASSEMBLY (AWZ3418)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	Q101, 103	TRANSISTOR	2SC1845
	Q105	N–DUAL–FET	2SK389NK
	Q107, 109	TRANSISTOR	2SC1845
	Q111	TRANSISTOR	2SC1845
	Q113, 115	TRANSISTOR	2SA992
	Q117, 119	TRANSISTOR	2SC1845
	Q121	TRANSISTOR	2SA1145
	Q123	TRANSISTOR	2SC2705
	Q125, 127	TRANSISTOR	2SC1845
	Q129	TRANSISTOR	2SA992
	Q133	TRANSISTOR	2SC2603
	Q135	TRANSISTOR	2SC2705
	Q137	TRANSISTOR	2SC1845
	Q147	TRANSISTOR	2SA1145
	Q149	TRANSISTOR	2SC3298
	Q151	TRANSISTOR	2SA1306
	Q157	N–FET	2SK246
	Q159, 161	TRANSISTOR	2SC1845
	D101	ZENER DIODE	RD24ESB
	D103	DIODE	1SS252
	D105	LED (RED)	AEL–437
	D107	DIODE	1SS252
	D109	LED (RED)	AEL–437
	D111, 113	ZENER DIODE	RD13ESB3
	D115, 117	DIODE	1SS252
	D127, 129	DIODE	1SS252

CAPACITORS

Mark	No.	Description	Parts No.
	C101	CERAMIC CAPACITOR	CCCSL101K500
	C103	CERAMIC CAPACITOR	CCCSL101J50
	C105	CERAMIC CAPACITOR	CKCYB222K500
	C107, 109	CERAMIC CAPACITOR	CKCYB331K50
	C111	ELECTR.CAPACITOR	CEAS221M25
	C113, 115	CERAMIC CAPACITOR	CCCSL680K500
	C117	ELECTR. CAPACITOR (220/50)	ACH1058
	C119	AUDIO FILM CAPACITOR	CFTXA103J50
	C121	CERAMIC CAPACITOR	CCCSL150K500
	C123	ELECTR.CAPACITOR	CEAS221M25
	C125, 127	ELECTR. CAPACITOR	CEAS101M63
	C129	ELECTR.CAPACITOR	CEAS4R7M50
	C131, 133	CERAMIC CAPACITOR	CKDYF223Z50
	C135, 137	CERAMIC CAPACITOR	CKDYF223Z50
	C139	CERAMIC CAPACITOR	CKCYB471K50
	C141, 143	CERAMIC CAPACITOR	CCCSL680K500
	C145	ELECTR.CAPACITOR	CEAS100M50
	C147	AUDIO FILM CAPACITOR	CFTXA103J50
	C149, 151	CERAMIC CAPACITOR	CCCSL221J50
	C153	MYLOR FILM CAPACITOR	CQMA223K250

RESISTORS

Mark	No.	Description	Parts No.
	VR101	VR	VRTM6H503
	R101	CARBON FILM RESISTOR	RDR1/4PM221J
	R103	CARBON FILM RESISTOR	RDR1/4PM224J
	R113	CARBON FILM RESISTOR	RDR1/4PM223J
	R115	CARBON FILM RESISTOR	RDR1/4PM681J
⚠	R121	FUSIBLE RESISTOR	RFA1/4PS271J
	R123	CARBON FILM RESISTOR	RDR1/4PM224J
⚠	R125, 127	FUSIBLE RESISTOR	RFA1/4PS331J
	R129, 131	CARBONFILM RESISTOR	RD1/2PM223J
⚠	R133	FUSIBLE RESISTOR	RFA1/4PS271J
⚠	R139	FUSIBLE RESISTOR	RFA1/4PS470J
⚠	R141	FUSIBLE RESISTOR	RFA1/4PS101J
⚠	R143	FUSIBLE RESISTOR	RFA1/4PS4R7J
⚠	R145	FUSIBLE RESISTOR	RFA1/4PS821J
⚠	R153	FUSIBLE RESISTOR	RFA1/4PS4R7J
⚠	R155	FUSIBLE RESISTOR	RFA1/4PS821J
⚠	R157, 159	FUSIBLE RESISTOR	RFA1/4PS101J
⚠	R161, 163	FUSIBLE RESISTOR	RFA1/4PS101J
⚠	R165, 167	FUSIBLE RESISTOR	RFA1/4PS271J
⚠	R169, 171	FUSIBLE RESISTOR	RFA1/4PS470J
⚠	R173, 175	FUSIBLE RESISTOR	RFA1/4PS4R7J
⚠	R177	RESISTOR (0.33, 5W)	ACN1075
⚠	R197	FUSIBLE RESISTOR	RFA1/4PS561J
⚠	R199	FUSIBLE RESISTOR	RFA1/4PS101J
	R201	CARBON FILM RESISTOR	RD1/8PM821J
		Other resistors	RD1/4PM□□□J

⊙ POWER R ASSEMBLY (AWZ3421)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	Q102, 104	TRANSISTOR	2SC1845
	Q106	N–DUAL–FET	2SK389NK
	Q108, 110	TRANSISTOR	2SC1845
	Q112	TRANSISTOR	2SC1845
	Q114, 116	TRANSISTOR	2SA992
	Q118, 120	TRANSISTOR	2SC1845
	Q122	TRANSISTOR	2SA1145
	Q124	TRANSISTOR	2SC2705
	Q126, 128	TRANSISTOR	2SC1845
	Q130	TRANSISTOR	2SA992
	Q134	TRANSISTOR	2SC2603
	Q136	TRANSISTOR	2SC2705
	Q138	TRANSISTOR	2SC1845
	Q148	TRANSISTOR	2SA1145
	Q150	TRANSISTOR	2SC3298
	Q152	TRANSISTOR	2SA1306
	Q158	N–FET	2SK246
	Q160, 162	TRANSISTOR	2SC1845
	D102	ZENER DIODE	RD24ESB
	D104	DIODE	1SS252
	D106	LED (RED)	AEL–437–O
	D108	DIODE	1SS252
	D110	LED (RED)	AEL–437–O
	D112, 114	ZENER DIODE	RD13ESB3
	D116, 118	DIODE	1SS252
	D128, 130	DIODE	1SS252

CAPACITORS

Mark	No.	Description	Parts No.
	C102	CERAMIC CAPACITOR	CCCSL101K500
	C104	CERAMIC CAPACITOR	CCCSL101J50
	C106	CERAMIC CAPACITOR	CKCYB222K500
	C108, 110	CERAMIC CAPACITOR	CKCYB331K50
	C112	ELECTR.CAPACITOR	CEAS221M25
	C114, 116	CERAMIC CAPACITOR	CCCSL680K500
	C118	ELECTR. CAPACITOR (220/50)	ACH1058
	C120	AUDIO FILM CAPACITOR	CFTXA103J50
	C122	CERAMIC CAPACITOR	CCCSL150K500
	C124	ELECTR.CAPACITOR	CEAS221M25
	C126, 128	ELECTR.CAPACITOR	CEAS101M63
	C130	ELECTR.CAPACITOR	CEAS4R7M50
	C132, 134	CERAMIC CAPACITOR	CKDYF223Z50
	C136, 138	CERAMIC CAPACITOR	CKDYF223Z50
	C140	CERAMIC CAPACITOR	CKCYB471K50
	C142, 144	CERAMIC CAPACITOR	CCCSL680K500
	C146	ELECTR.CAPACITOR	CEAS100M50
	C148	AUDIO FILM CAPACITOR	CFTXA103J50
	C150, 152	CERAMIC CAPACITOR	CCCSL221J50
	C154	MYLOR FILM CAPACITOR	CQMA223K250

RESISTORS

Mark	No.	Description	Parts No.
	VR102	VR	VRTM6H503
	R102	CARBON FILM RESISTOR	RDR1/4PM221J
	R104	CARBON FILM RESISTOR	RDR1/4PM224J
	R114	CARBON FILM RESISTOR	RDR1/4PM223J
	R116	CARBON FILM RESISTOR	RDR1/4PM681J
⚠	R122	FUSIBLE RESISTOR	RFA1/4PS271J
	R124	CARBON FILM RESISTOR	RDR1/4PM224J
⚠	R126, 128	FUSIBLE RESISTOR	RFA1/4PS331J
	R130, 132	CARBONFILM RESISTOR	RD1/2PM223J
⚠	R134	FUSIBLE RESISTOR	RFA1/4PS271J
⚠	R140	FUSIBLE RESISTOR	RFA1/4PS470J
⚠	R142	FUSIBLE RESISTOR	RFA1/4PS101J
⚠	R144	FUSIBLE RESISTOR	RFA1/4PS4R7J
⚠	R146	FUSIBLE RESISTOR	RFA1/4PS821J
⚠	R154	FUSIBLE RESISTOR	RFA1/4PS4R7J
⚠	R156	FUSIBLE RESISTOR	RFA1/4PS821J
⚠	R158, 160	FUSIBLE RESISTOR	RFA1/4PS101J
⚠	R162, 164	FUSIBLE RESISTOR	RFA1/4PS101J
⚠	R166, 168	FUSIBLE RESISTOR	RFA1/4PS271J
⚠	R170, 172	FUSIBLE RESISTOR	RFA1/4PS470J
⚠	R174, 176	FUSIBLE RESISTOR	RFA1/4PS4R7J
⚠	R178	RESISTOR (0.33, 5W)	ACN1075
⚠	R198	FUSIBLE RESISTOR	RFA1/4PS561J
⚠	R200	FUSIBLE RESISTOR	RFA1/4PS101J
	R202	CARBONFILM RESISTOR	RD1/8PM821J
		Other resistors	RD1/4PM□□□J

⊙ POWER SUPPLY ASSEMBLY (AWZ3426)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	Q603	TRANSISTOR	2SB1274
	Q605	TRANSISTOR	2SD1913
	Q606	TRANSISTOR	2SB1274
	Q607	TRANSISTOR	2SD1913
	Q608	TRANSISTOR	2SB1274
	Q609	TRANSISTOR	2SC1845
	Q610	TRANSISTOR	2SA992
	Q611	TRANSISTOR	2SD1913

Mark	No.	Description	Parts No.
	D605, 606	ZENER DIODE	RD24ESB1
	D607	ZENER DIODE	RD18ESB
	D608−611	DIODE	S5566
	D616	DIODE	1SS252
	D617−620	ZENER DIODE	RD22ESB3
CAPACITORS			
	C605, 606	ELECTR.CAPACITOR	CEAS101M50
	C607, 608	ELECTR.CAPACITOR	CEAS010M50
	C609	CERAMIC CAPACITOR	CKCYB471K50
	C610	ELECTR.CAPACITOR	CEAS101M63
	C611	ELECTR.CAPACITOR	CEAS3R3M50
	C613, 614	ELECTR.CAPACITOR	CEAS470M50
⚠	C615	POLYESTER CAPACITOR	CQMXA104J100
⚠	C617, 618	CKA (0.01/AC400V)	ACG1003
	C619, 620	ELECTR.CAPACITOR	CEAS100M50
	C623, 624	ELECTR.CAPACITOR	CEAS100M50
	C625	CERAMIC CAPACITOR	CKCYX473M25
RESISTORS			
⚠	R601,602	FUSIBLE RESISTOR	RFA1/4PS4R7J
⚠	R605, 606	METAL OXIDE RESISTOR	RS2LMF272J
⚠	R609, 610	FUSIBLE RESISTOR	RFA1/4PS680J
	R613	CARBON FILM RESISTOR	RD1/2PM332J
	R614	CARBON FILM RESISTOR	RD1/2PM222J
	R622	CARBON FILM RESISTOR	RD1/2PM103J
		Other resistors	RD1/4PM□□□J
OTHERS			
	CN11	CONNECTOR (4P)	KPC4
	CN16	CONNECTOR (7P)	KPC7

SPEAKER TERM. ASSEMBLY

Mark	No.	Description	Parts No.
RELAIES			
	RY901, 902	RELAY	ASR−112
	RY903	RELAY	ASR1005
COILS			
	L901, 902	COIL	ATH1021
CAPACITORS			
	C901−904	AUDIO FILM CAPACITOR	CFTXA104J50
	C905−908	AUDIO FILM CAPACITOR	CFTXA223J50
	C909−912	POLYESTER CAPACITOR	CQMXA472J100
	C913−916	AUDIO FILM CAPACITOR	CFTXA223J50
RESISTORS			
⚠	R901, 902	METAL OXIDE RESISTOR	RS1LMF101J
⚠	R903, 904	METAL OXIDE RESISTOR	RS2LMF331J
⚠	R907, 908	METAL OXIDE RESISTOR	RS2LMF100J
	R909−912	CARBON FILM RESISTOR	RD1/4PM100J
OTHERS			
		SPEAKER TERMINAL 4−P	AKE1017

⊙ PHONO AMP ASSEMBLY (AWZ3436)

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC501, 502	OP−AMP−IC	M5220P
	Q501−504	N−FET	2SK369
	Q509, 510	TRANSISTOR	2SC1845
	Q515, 516	TRANSISTOR	2SC1845
SWITCH			
	S501	SWITCH	ASU1008
COILS			
	L501, 502	COIL	ATH1010
CAPACITORS			
	C503, 504	AUDIO FILM CAPACITOR	CFTXA103J50
	C505, 506	CERAMIC CAPACITOR	CCCSL181K500
	C507, 508	CERAMIC CAPACITOR	CKCYB222K500
	C509, 510	ELECTR. CAPACITOR	CEXA470M25
	C511, 512	ELECTR. CAPACITOR	CEXA221M25
	C513, 514	AUDIO FILM CAPACITOR	CFTXA224J50
	C515, 516	AUDIO FILM CAPACITOR	CFTXA333J50
	C517, 518	AUDIO FILM CAPACITOR	CFTXA224J50
	C519, 520	AUDIO FILM CAPACITOR	CFTXA563J50

Mark No.	Description	Parts No.
C521, 522	ELECTR. CAPACITOR	CEXA220M25
C523, 524	CERAMIC CAPACITOR	CCDSL390J50
C525, 526	ELECTR. CAPACITOR	CEXA471M25
C531, 532	CERAMIC CAPACITOR	CCCSL271J50
C533, 534	CERAMIC CAPACITOR	CKCYB681K50
C535, 536	CERAMIC CAPACITOR	CCCSL221K500
C537, 538	CERAMIC CAPACITOR	CKCYF103Z50
C539	CERAMIC CAPACITOR	CKDYF103Z50
RESISTORS		
R505, 506	CARBON FILM RESISTOR	RD1/8PM272J
R527, 528	CARBON FILM RESISTOR	RDR1/4PM6R8F
R529, 530	CARBON FILM RESISTOR	RDR1/4PM820F
R533, 534	CARBON FILM RESISTOR	RDR1/4PM153F
R537, 538	CARBON FILM RESISTOR	RDR1/4PM152F
R541, 542	CARBON FILM RESISTOR	RDR1/4PM222F
R568	CARBON FILM RESISTOR	RD1/8PM010J
R569	CARBON FILM RESISTOR	RD1/8PM2R2J
	Other resistors	RD1/4PM□□□J
OTHERS		
	PIN JACK (1P)	AKB1025
	PIN JACK (1P)	AKB1026

⊙ VR ASSEMBLY (AWZ3441)

Mark No.	Description	Parts No.
SEMICONDUCTORS		
IC252	OP−AMP−IC	M5220P
Q139, 141	TRANSISTOR	2SC2458
Q143	TRANSISTOR	2SA1115
Q144	TRANSISTOR	2SC2458
Q145	TRANSISTOR	2SC1815
D131	ZENER DIODE	RD12ESB
D134	DIODE	1SS252
CAPACITORS		
C255, 256	ELECTR. CAPACITOR	CEXA4R7M50
C257, 258	CERAMIC CAPACITOR	CKCYB561K500
C261, 262	ELECTR. CAPACITOR	CEXA101M25
C263, 264	ELECTR.CAPACITOR	CEAS101M25
C269, 270	CERAMIC CAPACITOR	CCCSL470J50
C271	ELECTR. CAPACITOR	CEAS471M6
C273	CERAMIC CAPACITOR	CKDYF103Z50
C274	ELECTR.CAPACITOR	CEAS101M16
C275	ELECTR.CAPACITOR	CEAS010M100
C276	CERAMIC CAPACITOR	CCCSL181J50
C277	CERAMIC CAPACITOR	CCCSL151J50
RESISTORS		
VR251	VARIABLE RESISTOR	ACW1007
R215	CARBON FILM RESISTOR	RD1/8PM222J
R217	FUSIBLE RESISTOR	RFA1/4PS221J
R221	CARBON FILM RESISTOR	RD1/8PM223J
R222	CARBON FILM RESISTOR	RD1/8PM222J
R231	CARBON FILM RESISTOR	RD1/8PM153J
R261, 262	CARBON FILM RESISTOR	RDR1/4PM101J
R265, 266	CARBON FILM RESISTOR	RDR1/4PM331J
R267, 268	CARBON FILM RESISTOR	RDR1/4PM122J
R271, 272	CARBON FILM RESISTOR	RDR1/4PM101J
	Other resistors	RD1/4PM□□□J
OTHERS		
CN8	JUMPER CONNECTOR	KPC8

HEAD PHONE ASSEMBLY

CAPACITORS		
C951, 952	CERAMIC CAPACITOR	CKCYB392K50
OTHERS		
	JACK (HEAD PHONE)	AKN1002

DIODE ASSEMBLY

SEMICONDUCTOR		
D621	DIODE	RB602(E)

5. FOR HB, SD, HEWZ AND A−676−S/HEWZ TYPES

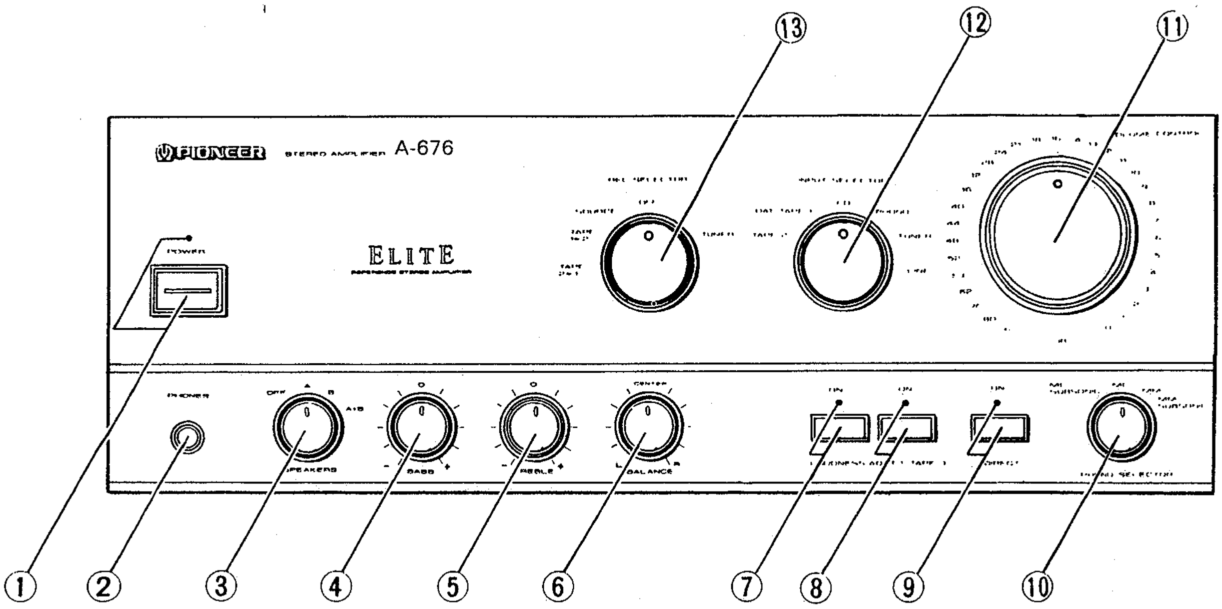
NOTES:
- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

CONTRAST OF MISCELLANEOUS PARTS

The A−676/HB, SD, HEWZ and A−676−S/HEWZ types are the same as the A−676/HE type with the exception of the following sections.

Mark	Symbol & Description	Part No.					Remarks
		A−676/ HE type	A−676/ HB type	A−676/ SD type	A−676/ HEWZ type	A−676−S/ HEWZ type	
⚠	S Line voltage selector switch	....	....	AKX−507	....	....	
⚠	T1 Power transformer	ATS1352	ATS1352	ATS1351	ATS1352	ATS1352	
	R1 Carbon film resistor	....	....	....	RD1/4PMF100J	RD1/4PMF100J	
⚠	FU3 Fuse (T2.5A/250V)	AEK−512	AEK−512	....	AEK−512	AEK−512	
⚠	FU3 Fuse (3.15A/125V)	....	....	AEK−124	....	....	
⚠	FU4 Fuse (3.15A/125V)	....	....	AEK−124	....	....	
⚠	AC Power cord	ADG1049	ADG1087	ADG1051	ADG1049	ADG1049	
⚠	AC socket (OUTLET, 3P)	....	....	AKP−515	....	....	
	Rotary knob L	AAB1222	AAB1222	AAB1222	AAB1222	AAB1225	
	Rotary knob M	AAB1223	AAB1223	AAB1223	AAB1223	AAB1226	
	Rotary knob S	AAB1224	AAB1224	AAB1224	AAB1224	AAB1240	
	Push knob	AAD1536	AAD1536	AAD1536	AAD1536	AAD1538	
	Direct knob	AAD1560	AAD1560	AAD1560	AAD1560	AAD1562	
	Power knob	AAD2010	AAD2010	AAD2010	AAD2010	AAD2041	
	Panel base	AMB1799	AMB1799	AMB1799	AMB1799	AMB1800	
	Front panel	ANB1455	ANB1455	ANB1455	ANB1455	ANB1456	
	Bonnet case	AZN1804	AZN1804	AZN1804	AZN1804	ANE1305	
	Screw	FBT40P080FZK	FBT40P080FZK	FBT40P080FZK	FBT40P080FZK	FBT40P080FCR	
	Packing case	AHD2069	AHD2069	AHD2069	AHD2069	AHD2070	
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1194	....	....	....	....	
	Operating instructions (English, Spanish)	....	ARE1204	ARE1204	....	....	
	Operating instructions (German)	....	....	....	ARC1268	ARC1268	

6. PANEL FACILITIES



① POWER switch/indicator

Press to turn power to the unit ON and OFF.
When the power is ON, the indicator lights.

② PHONES jack

When using headphones, insert the plug into this jack.

③ SPEAKERS selector switch

Use this switch to listen to the speaker systems connected to SPEAKERS terminals.

OFF:

Released position: No sound is heard from the speaker systems. Set to this position when listening with headphones.

A:

For reproduction of sound with the speaker system connected to the SPEAKERS A terminals.

B:

For reproduction of sound with the speaker system connected to the SPEAKERS B terminals.

A + B:

For reproduction of sound with the speaker systems connected to SPEAKERS A and B terminals.

④ BASS tone control

Use to adjust the low-frequency tone at low volume level. The center position is the flat (normal) position. When turned to the right, low-frequency tones are emphasized; when turned to the left, low-frequency tones are de-emphasized.

NOTE:

- *This function does not operate when the DIRECT button is in the ON position.*
- *At volume levels lower than "32," the set tone control effect is obtained.*
- *At volume levels higher than "32," the effect becomes increasingly weaker.*

⑤ TREBLE tone control

Use to adjust the high-frequency tone at low volume level. The center position is the flat (normal) position. When turned to the right, high-frequency tones are emphasized; when turned to the left, high-frequency tones are de-emphasized.

NOTE:

- *This function does not operate when the DIRECT button is in the ON position.*
- *At volume levels lower than "32," the set tone control effect is obtained.*
- *At volume levels higher than "32," the effect becomes increasingly weaker.*

⑥ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the LEFT position and if the left side is louder, turn toward the RIGHT position.

NOTE:

This function does not operate when the DIRECT button is in the ON position.

⑦ LOUDNESS button/indicator

Use when listening at low volume levels.

ON:

The indicator lights: Boosts low and high frequencies to give added punch to playback at low volume.

OFF:

The indicator goes off: Should normally be left in this position.

NOTE:

This button does not operate when the DIRECT button is in the ON position.

⑧ ADPT /TAPE 3 button/indicator

Use this button to listen to tape playback, or to monitor a tape recording.

ON:

The indicator lights: Press when listening to the playback sound of the cassette deck or the adaptor connected to the ADPT /TAPE 3 IN/PLAY jacks, or to monitor the sound being recorded on the cassette deck connected to the ADPT /TAPE 3 OUT/REC jacks.

OFF:

The indicator goes off: Normally leave the button in this position.

NOTE:

When the DIRECT button is set to ON, this function does not operate and no signal is output at the ADPT /TAPE 3 OUT/REC jacks.

⑨ DIRECT button/indicator

Use this button when you wish to bypass the various frequency adjusting circuits and adaptor jacks (ADPT /TAPE 3, ADPT 2, BASS, TREBLE, BALANCE, LOUDNESS).

ON:

When this button is in this position, the indicator lights and the signals input from the input jacks are reproduced without passing through the various frequency-adjusting circuits. This results in flat, pure sound which is a more faithful reproduction of the input source.

OFF:

When the button is in this position the indicator goes out and the signal passes through the various frequency adjusting circuits.

⑩ PHONO SELECTOR switch

Set in accordance with the type of cartridge used in your turntable.

MM:

Set to this position when using a moving magnet cartridge, or a MC (moving coil) cartridge with high output of 1 mV or more.

MC:

Set to this position when using a moving coil cartridge.

MM SUBSONIC/MC SUBSONIC:

Subsonic filter for moving coil or moving magnet cartridges to cut ultralow frequency noise less than 17 Hz generated when playing a warped record.

When using a high-output moving coil cartridge, set this switch to MM or MM SUBSONIC.

⑪ VOLUME CONTROL

Use to adjust volume level.

NOTE:

This unit is equipped with a circuit that attenuates the effect of tone and loudness controls as volume is turned up.

⑫ INPUT SELECTOR switch

Use to select playback source.

LINE:

Set to this position when listening to the programs from a component connected to the LINE jacks.

TUNER:

Set to this position when listening to AM or FM broadcasts with a tuner.

PHONO:

Set to this position when listening to record playback on a turntable.

CD:

Set to this position when listening to a compact disc playback with a CD player.

DAT/TAPE 1:

For playback with a cassette deck or digital audio tape deck connected to the DAT/TAPE 1 jacks.

TAPE 2:

For playback with a cassette deck connected to the TAPE 2 jacks.

⑬ REC SELECTOR switch

Switch to select recording signal. When set at other positions than SOURCE or OFF, signals can be recorded during playback of the equipment selected by INPUT SELECTOR switch.

TUNER:

To record from a TUNER.

CD:

To record from a CD player.

OFF:

In this position nothing from the REC jacks of DAT/TAPE 1 and TAPE 2 will be output. Select it when not recording; output to cassette decks will be disconnected, improving sound quality.

SOURCE:

To record the equipment selected by INPUT SELECTOR switch.

TAPE:

1 ► 2

To record (copy) from the cassette deck of DAT/TAPE 1 jacks, over to the cassette deck of TAPE 2 jacks.

2 ► 1

To record (copy) from the cassette deck of TAPE 2 jacks, over to the cassette deck of DAT/TAPE 1 jacks.

NOTE:

The REC SELECTOR switch has no effect on the recording output of the ADPT /TAPE 3 jacks.

7. SPECIFICATIONS

[A-676]

Continuous power output (both channels driven at 20 Hz to 20 kHz)**	
U.K.model	
T.H.D. 0.007%, 8 Ω	70 W + 70 W*
T.H.D. 0.009%, 4 Ω	95 W + 95 W*
Multi-voltage model	
T.H.D. 0.007 %, 8 Ω	80 W + 80 W*
T.H.D. 0.009 %, 4 Ω	100 W + 100 W*
DIN Continuous power output (both channels driven at 1 kHz)	
T.H.D. 1.0 %, 8 Ω	80 W + 80 W
T.H:D. 1.0 %, 4 Ω	120 W + 120 W
Power bandwidth	
0.05 %, 8 Ω	5 Hz – 80 kHz*
Damping factor	
(1 kHz/20 Hz to 20 kHz), 8 Ω	150/70
Dynamic power output (on EIA dynamic test signal)	
4 Ω/2 Ω	150 W/200 W
Total harmonic distortion**	
U.K. model	
20 Hz to 20 kHz, 70 W, 8 Ω	0.007 %*
20 Hz to 20 kHz, 95 W, 4 Ω	0.009 %*
Multi-voltage model	
20 Hz to 20 kHz, 80 W, 8 Ω	0.007 %*
20 Hz to 20 kHz, 100 W, 4 Ω	0.009 %*
Inter-modulation distortion (at rated output)	0.007 %*
Input sensitivity/impedance	
PHONO (MM)	2.5 mV/50 kΩ
PHONO (MC)	0.2 mV/100 Ω
CD, TUNER, LINE, TAPE	150 mV/50 kΩ
PHONO overload level	
1 kHz, T.H.D. 0.008 % (MM/MC)	200 mV/19 mV
Output level/impedance	
TAPE REC, ADAPTOR OUTPUT	150 mV/2.2 kΩ
Frequency response	
PHONO (MM), 20 Hz to 20 kHz	± 0.2 dB
PHONO (MC), 20 Hz to 20 kHz	± 0.3 dB
CD, TUNER, LINE, TAPE, 1 Hz to 150 kHz	$^{+0}_{-3}$ dB*
Tone control (volume control set at −40 dB position)	
BASS	± 8 dB (100 Hz)
TREBLE	± 8 dB (10 kHz)
Loudness contour (volume control set at −40 dB position)	+5 dB (100 Hz)/+3 dB (10 kHz)
Filter (SUBSONIC)	17 Hz (12 dB/oct.)
Signal-to-Noise ratio (IHF short circuit, A network)	
PHONO (MM, 5 mV input/MC, 0.5 mV input)	94 dB/76 dB*
CD, TUNER, LINE, TAPE	110 dB*
Signal-to-Noise ratio (DIN, continuous power/50 mW)	
PHONO (MM)	74 dB/65 dB*
CD, TUNER, LINE, TAPE	92 dB/68 dB*

Power Supply/Miscellaneous

Power requirements	
U.K. model	a.c. 240 Volts ~, 50/60 Hz
Multi-voltage models	AC 110/120 – 127/220/240V (switchable), 50/60 Hz
Power consumption	650 W
AC outlets (Multi-voltage models only)	
Switched (x 2)	100 W
Unswitched (x 1)	100 W
Dimensions	420 (W) x 435 (D) x 162 (H) mm 16-9/16 (W) x 17-1/8 (D) x 6-3/8 (H) in
Weight (without package)	12.8 kg (28 lbs 4 oz)

Accessories

Operating instructions	1

NOTE:

Specifications and design subject to possible modification without notice, due to improvements.

* When the DIRECT button to ON.

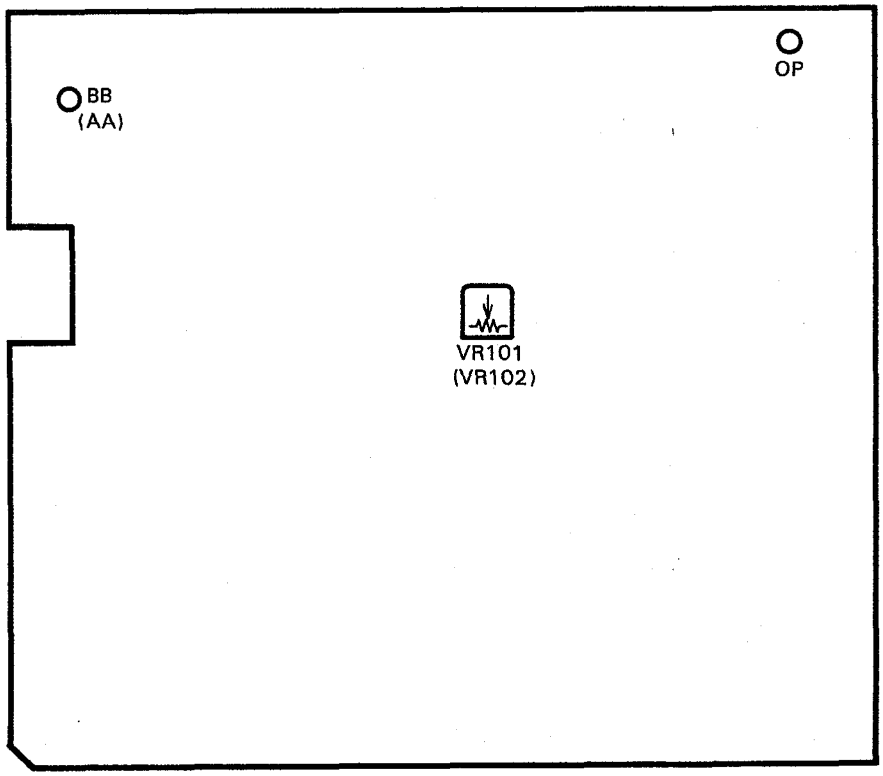
** Measured by Audio Spectrum Analyzer.

8. ADJUSTMENTS

■ IDLE CURRENT ADJUSTMENT

1. Set the VOLUME CONTROL to minimum.
2. Set the POWER switch to ON.
3. Adjust VR101 (VR102) so that the voltage between OP and BB (AA) becomes $11^{+8.8}_{-3.3}$ mV.

NOTE :
After tuning on the power, wait at least 30 minutes before adjustment.



POWER L (R) assembly

Fig. 1 Adjustment point